Fisheries and Marine Service

Technical Report 764

April 1978

AN INDEX TO THE PUBLICATIONS OF THE STAFF OF THE FRESHWATER INSTITUTE, WINNIPEG, 1976-77

by

K.E. Marshall and M. Kays

Western Region

Fisheries and Marine Service

Department of Fisheries and the Environment

Winnipeg, Manitoba R3T 2N6

This is the 109th Technical Report

from the Western Region, Winnipeg

© Ministry of Supply and Services Canada 1978

Cat. no. Fs 97-6/764 ISSN 0701-7626

TABLE OF CONTENTS

	Page
ABSTRACT	iv
INTRODUCTION	1
Format	1
Availability of publications	2
Errata - Technical Report No. 620	2
ACKNOWLEDGMENTS	2
LIST OF PUBLICATIONS	3
REPRINTS	5
TECHNICAL REPORTS	11
DATA REPORTS	11
INDUSTRY REPORTS	11
INDEX	13
NOTES	15
Author entries	15
Subject entries	15
Abbreviations used	16

ABSTRACT

Marshall, K.E. and M. Kays. 1978. An index to the publications of the staff of the Freshwater Institute, Winnipeg, 1976-77. Can. Fish. Mar. Serv. Tech. Rep. 764: iv+ 41 p.

The scientific and technical publications of the staff of the Freshwater Institute, Winnipeg, including both reports and reprints of papers published in periodicals and books, are listed. An index provides access to the publications by individual authors, and about particular species, water bodies and individual subjects.

Key words: bibliographic information; bibliographies; documentation.

RESUME

Marshall, K.E. and M. Kays. 1978. An index to the publications of the staff of the Freshwater Institute, Winnipeg, 1976-77. Can. Fish. Mar. Serv. Tech. Rep. 764: iv + 41 p.

Le présent ouvrage contient une liste des travaux scientifiques et techniques publiés par les scientifiques de l'Institut des eaux douces de Winnipeg, comprennant à la fois des rapports et des tirés à part qui ont paru dans des revues et des livres. Un index donne accés aux publications de chaque auteur, aux publications qui portent sur des espéces particuliéres, sur diverses étendues d'eau et sur des sujets individuels.

Mots-clefs: information bibliographique; bibliographies; documentation.

INTRODUCTION

The present report has been prepared in order to provide a list of the publications of the staff of the region and to help you to find publications by a particular staff member, about a particular organism or subject, or containing data from a particular geographical area.

Technical Reports No. 505 and 620 provided similar information for publications issued in 1944-73 and 1974-75 respectively.

This report covers publications of the staff published mainly in 1976 and 1977. Some publications issued in 1975 which were not listed in Technical Report No. 620 are included in this report.

FORMAT

The format of this report is essentially similar to that used in the earlier indexes in that the first part is a list of publications and the second part is an author and subject index.

The list of publications is divided into four parts:

1. Reprints of papers by staff published in scientific and technical periodicals and books. These are listed in the order that they were received at the Institute. This sequence is approximately the order of publication. In the index they are listed by numbers with no letter prefix.

2. Technical Reports of the Fisheries and Marine Service are listed in numerical order. In the index they are listed as TR123, etc.

3. The one Industry Report of the Fisheries and Marine Service issued from the Institute is listed. In the index it is referred to as IR93.

4. The Data Reports of the Fisheries and Marine Service are listed in numerical order. They are referred to in the index as DR12, etc. Only a small number of copies of these reports were printed. Requesters should indicate why they need the specialized information in those reports.

Full bibliographic details of each publication are given in the list of publications. In the index, citations under the authors' names are not complete and are only given as a means of distinguishing between the various publications listed. Reference should be made to the entry in the list of publications for full details. Abbreviations for journal title follow those used by *Biological Abstracts*.

Reports of a confidential nature are not included in this index.

INTRODUCTION

Le présent rapport contient une liste des documents publiés par les scientifiques de la région; cette liste permettra aux personnes intéressées de retrouver les documents publiés par un scientifique de l'Institut des eaux douces, les documents que possède l'Institut sur un organisme ou un sujet particulier ou les textes contenant des renseignements sur une certaine région.

Les rapports techniques nº 505 et 620 renfermaient la liste des travaux publiés respectivement de 1944 à 1973 et en 1974-1975.

Le présent rapport contient surtout les travaux parus en 1976 et 1977. On y trouve aussi certaines publications de 1975 qui n'apparaissaient pas dans le rapport technique nº 620.

PRESENTATION

La présentation de ce rapport est semblable à celle des deux index précédents; la première partie donne une liste de publications et la deuxième partie un index de ces publications par auteur et par sujet.

La liste des publications est divisée en quatre parties:

1. Les tirés à part des publications des scientifiques de l'Institut publiés dans des revues et des ouvrages scientifiques et techniques. L'ordre est celui dans lequel les exemplaires sont parvenus à l'Institut. Il correspond plus ou moins à l'ordre de publication. Dans l'index, les articles sont classés par ordre numérique, sans préfixe alphabétique.

2. Les rapports du Service des pêches et de la mer sont classés par ordre numérique. Dans l'index, ils apparaissent sous TR123, etc.

3. Le seul rapport industriel du Service des pêches et de la mer publié à l'Institut se trouve dans la liste. Dans l'index, il a le numéro IR93.

4. Les rapports d'information du Service des pêches et de la mer sont classés par ordre numérique. Dans l'index, ils apparaissent sous DR12, etc. Il n'existe qu'un nombre limité de ces rapports; les personnes qui en font la demande doivent donc indiquer pourquoi elles en ont besoin.

La liste des publications donne tous les renseignements bibliographiques relatifs à chaque document. Les citations qui figurent dans l'auteur sont incomplètes et servent seulement à différencier les divers documents. Il faut consulter la liste pour obtenir tous les détails. Les abréviations de titre de journaux utilisés dans la liste proviennent des *Biological Abstracts*.

L'index ne comprend pas les rapports d'ordre confidentiel.

AVAILABILITY OF PUBLICATIONS

Stocks of many of the publications listed in this report are available for distribution from the Library of the Freshwater Institute. Some of the publications are available from other sources and this is indicated in the list of publications. Some of the reprints listed have been given "a" numbers (e.g. 500a) and these are not available for free distribution. They are included only to record fully the work of the staff.

Stocks of some of the publications for free distribution may have become exhausted. On request we will try to supply xerox copies through the inter-library loans service of the Freshwater Institute Library at the current rates.

Requests for publications listed in this report should be addressed to:

Department of Fisheries and the Environment
Freshwater Institute Library
501 University Crescent
Winnipeg, Manitoba, Canada
R3T 2N6

DISPONIBILITE DES PUBLICATIONS

La bibliothéque de l'Institut des eaux douces a en réserve et peut distribuer gratuitement la plupart des publications mentionnées dans ce rapport. Il est aussi possible de se procurer ailleurs certaines de ces publications; on désigne la source dans la liste. Les publications dont le numéro est accompagné du suffixe "a" (par exemple, 500a) ne peuvent être distribuées gratuitement; on les a quand même incluées dans la liste pour compléter le répertoire des travaux publiés par les scientifiques de l'Institut.

Il se peut que la reserve de certaines publications destinées à la distribution gratuite soit épuisée. Sur demande, on essaiera de fournir des copies xerox par l'intermédiaire du service des prêts entre bibliothéques de la bibliothéque de l'Institut des eaux douces, aux taux courants.

Prière d'adresser les demandes relatives aux publications cataloguees dans le présent rapport au:

Department of Fisheries and the Environment
Freshwater Institute Library
501 University Crescent
Winnipeg, Manitoba, Canada
R3T 2N6

ERRATA - TECHNICAL REPORT NO. 620

On page 41, under "Mercury" (line 12), replace 319 by 317b.

ERRATA - RAPPORT TECHNIQUE nº 620

A la page 41, sous "Mercury" (ligne 12), remplacer 319 par 317b.

ACKNOWLEDGMENTS

The authors wish to thank Dr. D.P. Scott and Frances Kasper for their assistance in the preparation of this publication.

LIST OF PUBLICATIONS

REPRINTS

408 TABACHEK, J.-A.L. & M. YURKOWSKI 1976 Isolation and identification of blue-green algae producing muddy odor metabolites, geosmin and 2-methylisoborneol, in saline lakes in Manitoba. J.Fish.Res.Board Can. 31(1): 25-35.

408a THOMPSON, B. & R.D. HAMILTON 1974 Some problems with heterotrophic-uptake methodology. pp.566-575 *in*: R.R. Colwell & R.Y. Morita (eds) Effect of the ocean environment on microbial activities. Baltimore: University Park Press.

409 HEALEY, F.P. & L.L. HENDZEL 1976 Physiological changes during the course of blooms of *Aphanizomenon flos-aquae*. J.Fish.Res.Board Can. 31(1): 36-41.

410 IREDALE, D.G. & R.K. YORK 1976 Purging a muddy-earthy flavor taint from rainbow trout (*Salmo gairdneri*) by transferring to artificial and natural holding environments. J. Fish.Res.Board Can. 31(1): 160-166.

411 FINDLAY, G.M., G.J. HOWE & W.L. LOCKHART 1975 Impact of fenitrothion upon Japanese quail (*Coturnix coturnix japonica*) in a forest ecosystem. Manit.Entomol. 8:10-15, 1974

412 LEONHARD, S.L. 1975 Uptake of fenitrothion by caged crayfish, *Orconectes virilis*, in Pine Creek, Manitoba, 1973. Manit. Entomol. 8: 16-18. 1974.

413 SNOW, N.B. & P. CHANG 1975 Aspects of zoobenthos ecology of the Mackenzie Delta, N.W.T. Int.Ver.theor.angew.Limnol. Verh. 19(2): 1562-1567.

414 ROSENBERG, D.M. & A.P. WIENS 1975 Experimental sediment addition studies on the Harris River, N.W.T., Canada: the effect on macroinvertebrate drift. Int.Ver.theor.angew.Limnol. Verh. 19(2): 1568-1574.

415 WAGEMANN, R. 1975 Some environmental and toxicological aspects of a tri-aryl phosphate synthetic oil. Int.Ver.theor.angew.Limnol. Verh. 19(3): 2178-2184.

416 ROSENBERG, D.M. & N.B. SNOW 1975 Effect of crude oil on zoobenthos colonization of artificial substrates in subarctic ecosystems. Int.Ver.theor.angew.Limnol. Verh. 19(3): 2172-2177.

416a WALLACE, R.R. & M.J. HARDIN 1975 Chemical and biological characteristics of seepages from tailings areas at Cominco Con Mine into Kam Lake, Northwest Territories, in 1974. Env.Prot. Serv. Rep. EPS 5-NW-75-3: 23p.

417 FLETT, R.J., R.D. HAMILTON & N.E.R. CAMPBELL 1976 Aquatic acetylene-reduction techniques: solutions to several problems. Can.J.Microbiol. 22(1): 43-51.

418 SCHINDLER, D.W. 1975 Factors affecting gas exchange in natural waters. Limnol.Oceanogr. 20(6): 1053-1055.

419 LEATHERLAND, J.F. & R. PERCY 1976 Structure of the nongranulated cells in the hypophyseal rostral *pars distalis* of cyclostomes and Actinopterygians. Cell Tissue Res. 166: 185-200.

420 HARA, T.J. 1976 Structure-activity relationships of amino acids in fish olfaction. Comp. Biochem.Physiol. 54A(1): 31-36.

421 HARA, T.J. 1976 Effects of pH on the olfactory responses to amino acids in rainbow trout, *Salmo gairdneri*. Comp.Biochem.Physiol. 54A(1): 37-39.

422 HARA, T.J. & S. MacDONALD 1976 Olfactory responses to skin mucous substances in rainbow trout, *Salmo gairdneri*. Comp.Biochem.Physiol. 54A(1): 41-44.

422a NALEWAJKO, C. & D.W. SCHINDLER 1976 Primary production, extracellular release, and heterotrophy in two lakes in the ELA, northwestern Ontario. J.Fish.Res.Board Can. 33(2): 219-226.

423 SCHERER, E. 1976 Overhead-light intensity and vertical positioning of the walleye, *Stizostedion vitreum vitreum*. J.Fish.Res.Board Can. 33(2): 289-292.

424 FLETT, R.J., R.D. HAMILTON & N.E.R. CAMPBELL 1975 Nitrogen fixation in aquatic environments - a critical study of the acetylene reduction assay. Int.Ver.theor.angew.Limnol. Verh. 19(4): 2664-2668.

425 RUDD, J.W.M. & R.D. HAMILTON 1975 Methane oxidation in a eutrophic Canadian Shield lake. Int.Ver.theor.angew.Limnol. Verh. 19(4): 2669-2673.

426 SAETHER, O.A. 1975 Nearctic chironomids as indicators of lake typology. Int.Ver.theor. angew.Limnol. Verh. 19(4): 3127-3133.

427 DAVIES, I.J. 1975 Selective feeding in some arctic Chironomidae. Int.Ver.theor.angew. Limnol. Verh. 19(4): 3149-3154.

428 SCHINDLER, D.W. 1975 Whole-lake eutrophication experiments with phosphorus, nitrogen and carbon. Int.Ver.theor.angew.Limnol. Verh. 19(4): 3221-3231.

428a DE MARCH, L. 1975 Nutrient budgets for a high arctic lake (Char Lake, N.W.T.). Int. Ver.theor.angew.Limnol. Verh. 19(1): 496-503.

429 WARWICK, W.F. 1975 The impact of man on the Bay of Quinte, Lake Ontario, as shown by the subfossil chironomid succession (Chironomidae, Diptera). Int.Ver.theor.angew.Limnol. Verh. 19(4): 3134-3141.

REPRINTS

429a LEVINE, S. 1975 Orthophosphate concentration and flux within the epilimnia of two Canadian Shield lakes. Int.Ver.theor.angew.Limnol. Verh. 19(1): 624-629.

430 BRUNSKILL, G.J., P. CAMPBELL, S.ELLIOTT, B.W. GRAHAM & G.W. MORDEN 1975 Rates of transport of total phosphorus and total nitrogen in Mackenzie and Yukon River watersheds, N.W.T. and Y.T., Canada. Int.Ver.theor. angew.Limnol. Verh. 19(4): 3199-3203.

430a KALFF, J., H.J. KLING, S.H. HOLMGREN & H.E. WELCH 1975 Phytoplankton, phytoplankton growth and biomass cycles in an unpolluted and in a polluted polar lake. Int.Ver.theor. angew.Limnol. Verh. 19(1): 487-495.

431 AYLES, G.B., J.G.I. LARK, J. BARICA & H.KLING 1976 Seasonal mortality of rainbow trout (*Salmo gairdneri*) planted in small eutrophic lakes of central Canada. J.Fish.Res.Board Can. 33(4,1): 647-655.

432 LOCKHART, W.L., R. WAGEMANN, J.W. CLAYTON, B. GRAHAM & D. MURRAY 1975 Chronic toxicity of a synthetic tri-aryl phosphate oil to fish. Environ.Physiol.Biochem. 5(4): 361-369.

432a GUTHRIE, J.E., D.R. PROWSE & D.P. SCOTT 1975 An assessment of nuclear power plant waste heat utilization for freshwater fish farming. Chalk River, Atomic Energy of Canada, AECL-4924, 47 p.
Available from AECL $1.50.

433 AYLES, G.B. 1976 Comments on the current status of aquaculture in heated effluents in in North America. pp. 59-75 *in:* B. Gay, M.J.B. La Croix & I.L. Ophel (eds) Low-grade heat: a resource in cold climates; proceedings of a workshop held at the Chalk River Nuclear Laboratories,October 6 to 10, 1975. (AECL-5322/1) Vol.1.

434 PATALAS, K. 1976 Commentary on keynote paper by U. Grimas: Some aspects on cooling water discharges and environmental enhancement. pp. 161-171 *in*: B. Gay, M.J.B. La Croix & I.L. Ophel (eds) Low-grade heat: a resource in cold climates; proceedings of a workshop held at Chalk River Nuclear Laboratories, October 6 to 10, 1975. (AECL-5322/1) Vol.1.

435 CAUVIN, D.M. 1976 Commentary on keynote paper by F.W. Gorbet: Economics and the question of low-grade heat. pp. 433-442 *in*: B.Gay, M.J.B. La Croix & I.L.Ophel (eds) Low-grade heat: a resource in cold climates, proceedings of a workshop held at the Chalk River Nuclear Laboratories, October 6 to 10, 1975. (AECL-5322/2) Vol.2.

436 WALLACE, R.R., H.B.N. HYNES & N.K. KAUSHIK 1975 Laboratory experiments on factors affecting the activity of *Gammarus pseudolimnaeus* Bousfield. Freshwater Biol. 5(4): 533-546.

437 WIENS, A.P., D.M. ROSENBERG & K.W. EVANS 1975 *Symbiocladius equitans* (Diptera: Chironomidae), an ectoparasite of Ephemeroptera in the Martin River, Northwest Territories, Canada. Entomol.Germ. 2(2): 113-120.

438 HENDZEL, M.R. & D.M. JAMIESON 1976 Determination of mercury in fish. Anal.Chem. 48(6): 926-928.

438a BARICA, J. 1976 Nutrient dynamics in eutrophic inland waters used for aquaculture in some countries bordering the South China Sea, with particular reference to mass fish mortalities. Proposal for monitoring programmes (Philippines, Thailand and Hong Kong). South China Sea Fisheries Development & Coordinating Program, Manila. SCS/76/WP/24: 46 p.

439 DE MARCH, B.G.E. 1976 Spatial and temporal patterns in macrobenthic stream diversity. J.Fish.Res.Board Can. 33(6): 1261-1270.

440 KLAVERKAMP, J.F., W.L. LOCKHART, D. METNER & N. GRIFT 1976 Effects of chronic DDT/DDE exposure on anesthetic induction and recovery times in rainbow trout (*Salmo gairdneri*). J.Fish.Res.Board Can. 33(6): 1331-1334.

441 HARA, T.J., Y.M.C. LAW & S. MacDONALD 1976 Effects of mercury and copper on the olfactory response in rainbow trout, *Salmo gairdneri*. J.Fish.Res.Board Can. 33(7): 1568-1573.

442 SCHINDLER, D.W. 1976 Biogeochemical evolution of phosphorus limitation in nutrient-enriched lakes of the Precambrian Shield. pp.647-664 *in* J.O. Nriagu (ed.) Environmental biogeochemistry. Volume 2. Metals transfer and ecological mass balances. Ann Arbor, Mich. Ann Arbor Science Publishers.

443 RUDD, J.W.M., A. FURUTANI, R.J. FLETT & R.D. HAMILTON 1976 Factors controlling methane oxidation in Shield lakes: the role of nitrogen fixation and oxygen concentration. Limnol.Oceanogr.21(3): 357-364.

444 TOWNSEND, B.E. & R.D. HAMILTON 1976 Batch surface sterilization of chironomid eggs. Can. Entomol. 108(6): 669-671.

445 SCHINDLER, D.W. 1976 The impact statement boondogle. Science (Wash.) 192(4239): 509. (Response 193(4249): 188; 248; 251).

446 MARSHALL, K.E. 1976 Profiles of special libraries in Manitoba: Freshwater Institute Library. Manit.Lib.Ass.Bull. 6(4): 23.

446a AYLES, H., R.M. BAXTER & R.A. HALE (eds.) 1974 Workshop on environmental effects of reservoirs. Report on a workshop held at Freshwater Institute, Oct. 1-3, 1974. 42 + 7 p.

447 JOHNSON, L. 1975 The Great Bear Lake: its place in history. Arctic 28(4): 231-244.

REPRINTS

448 LOCKHART, W.L. & A. LUTZ 1976 Preliminary biochemical observations of fishes inhabiting an acidified lake in Ontario. pp. 545-569 *in*: Proceedings of the First International Symposium on Acid Precipitation and the Forest Ecosystem. (USDA Forest Service, General Technical Report, NE-23) *also published in* Water. Air Soil Pollut. 7(3): 317-332, 1977.

449 ROSENBERG, D.M. & A.P. WIENS 1976 Community and species responses of Chironomidae (Diptera) to contamination of fresh waters by crude oil and petroleum products, with special reference to the Trail River, Northwest Territories. J.Fish.Res.Board Can. 33(9): 1955-1963.

450 SCOTT, K.R. 1976 Hot water thawing of deboned mullet block. Can.Inst.Food Sci.Technol. J. 9(3): 160-166.

451 JOHNSON, L. 1976 Ecology of Arctic populations of lake trout, *Salvelinus namaycush*, lake whitefish, *Coregonus clupeaformis*, Arctic char, *S. alpinus*, and associated species in unexploited lakes of the Canadian Northwest Territories. J.Fish.Res.Board Can. 33(11): 2459-2488.

452 SCHINDLER, D.W., R.W. NEWBURY, K.G. BEATY & P. CAMPBELL 1976 Natural water and chemical budgets for a small Precambrian lake basin in central Canada. J.Fish.Res.Board Can. 33(11): 2526-2543.

453 HAMILTON, R.D. 1976 Aquatic environmental quality: toxicology. J.Fish.Res.Board Can. 33(11): 2671-2688.

454 WALLACE, R.R., H.B.N. HYNES & W.F. MERRITT 1976 Laboratory and field experiments with methoxychlor as a larvicide for Simuliidae (Diptera). Environ.Pollut. 10(4): 251-269.

455 SCHINDLER, D.W. & E.J. FEE 1975 The roles of nutrient cycling and radiant energy in aquatic communities. pp. 323-343 *in*: J.P. Cooper (ed,) Photosynthesis and productivity in different environments, Cambridge, Cambridge University Press. (International Biological Programme, 3)

456 FRIESEN, M.K. & J.F. FLANNAGAN 1976 Parthenogenesis in the burrowing mayfly *Hexagenia rigida* (Ephemeroptera). Can.Entomol. 108: 1295.

457 FEE, E.J. 1976 The vertical and seasonal distribution of chlorophyll in lakes of the Experimental Lakes Area, northwestern Ontario: implications for primary production estimates. Limnol.Oceanogr. 21(6): 767-783.

458 KELEHER, J.J. & K.E. MARSHALL 1976 A modest proposal regarding computer bibliographic search-retrieval systems and libraries and clients. Manit.Lib.Ass.Bull. 7(1): 32-42.

459 SCHINDLER, D.W. 1977 Evolution of phosphorus limitation in lakes: natural mechanisms compensate for deficiencies of nitrogen and carbon in eutrophied lakes. Science (Wash., D.C.) 195: 260-262.

460 HEALEY, F.P. 1977 Ammonium and urea uptake by some freshwater algae. Can.J.Bot. 55(1): 61-69.

461 ROSENBERG, D.M., A.P. WIENS & O.A. SAETHER 1977 Life histories of *Cricotopus (Cricotopus) bicinctus* and *C.(C.) mackenziensis* (Diptera: Chironomidae) in the Fort Simpson area, Northwest Territories. J.Fish.Res.Board Can. 34(2): 247-253.

462 ROSENBERG, D.M., A.P. WIENS & O.A. SAETHER 1977 Responses to crude oil contamination by *Cricotopus (Cricotopus) bicinctus* and *C.(C.) mackenziensis* (Diptera: Chironomidae) in the Fort Simpson area, Northwest Territories. J.Fish.Res.Board Can. 34(2): 254-261.

463 HARA, T.J. 1977 Further studies on the structure-activity relationships of amino acids in fish olfaction. Comp.Biochem. Physiol. 56A(4): 559-565.

464 ROSENBERG, D.M. & N.B. SNOW 1977 A design for environmental impact studies with special reference to sedimentation in aquatic systems of the Mackenzie and Porcupine River drainages. pp.III-65 -III-78 *in*: Proceedings of the Circumpolar Conference on Northern Ecology, September 15-18, 1975, Ottawa. Ottawa, National Research Council.

465 JOHNSON, L. 1977 The dynamics of arctic fish populations. pp.III-79 -III-90 *in*: Proceedings of the Circumpolar Conference on Northern Ecology, September 15-18, 1975. Ottawa. Ottawa, National Research Council.

466 HEALEY, M.C. 1977 Characteristics of northern trout and lake whitefish populations. pp.III-97-III-101 *in*: Proceedings of the Circumpolar Conference on Northern Ecology, September 15-18, 1975, Ottawa. Ottawa, National Research Council.

467 ARMSTRONG, F.A.J. & W. BURTON 1977 Grinder for small portions of animal tissue. Lab. Pract. 26(2): 102-103.

468 WAGEMANN, R. 1976 Reliability of trace metal determination in freshwater by flameless atomic absorption (graphite tube atomization)

REPRINTS

468 (contd) in comparison with other chemical and physical methods. pp.247-265 *in*: Accuracy in trace analysis: sampling, sample handling, and analysis, Proceedings of the 7th IMR Symposium, October 7-11, 1974. National Bureau of Standard Special Publication, 422.
(This publication is the same as TR555).

469 WAGEMANN, R., G.J. BRUNSKILL & B.W. GRAHAM 1977 Composition and reactivity of some river sediments from the Mackenzie valley, N.W.T., Canada. Environ.Geol. 1(6): 349-358.

470 IREDALE, D.G. & R.K. YORK 1977 Effects of chemical additives on extending the shelf life of frozen minced sucker (Catastomidae) flesh. J.Fish.Res.Board Can. 34(3): 420-425.

*471 SAETHER, O.A. 1976 Revision of *Hydrobaenus, Trissocladius, Zalutschia, Paratrissocladius,* and some related genera (Diptera: Chironomidae). Fish.Res.Board Can. Bull. 195: 287 p.

*472 SAETHER, O.A. 1977 Female genitalia in Chironomidae and other Nematocera: morphology, phylogenies, keys. Fish.Res.Board Can. Bull. 197: 209 p.

472a PATERSON, R.J. 1977 The federal EARP process. pp.83-94 *in*: W. Bell & J.J. Keleher (eds.) Rural Land Use Conflicts: Some Solutions. Manitoba Environmental Council, Study 8.

473 SCOTT, K.R. 1976 Speeding up batch telemetry: 1,200 Baud telephone data transmission. Can. Controls Instrum. 15(10): 36-37; 15(11): 22-24.

473a KLAVERKAMP, J.F., A. KENNEY, S.E. HARRISON & R. DANELL 1977 An evaluation of phenol and sodium azide as reference toxicants in rainbow trout. pp.73-92 *in*: G.R. Craig,(ed.) Second Annual Aquatic Toxicity Workshop, 1975, Proceedings. Ontario Ministry of the Environment.

473b MAJEWSKI, H. & J.F. KLAVERKAMP 1977 An acute bioassay for cardiovacular and respiratory functions in rainbow trout. pp. 165-178 *in*: G.R. Craig, (ed.) Second Annual Aquatic Toxicity Workshop, 1975 Proceedings. Ontario Ministry of the Environment.

473c SUPEENE, K.& G. ALEXANDER 1977 Avoidance-preference responses of whitefish to mine effluents, pp.179-193 *in*: G.R. Craig, (ed.) Second Annual Aquatic Toxicity Workshop, 1975, Proceedings. Ontario Ministry of the Environment.

473d CHU, B.& G. ALEXANDER 1977 A mobile bioassay laboratory. pp.200-211 *in*: G.R. Craig, (ed.) Second Annual Aquatic Toxicity Workshop, 1975, Proceedings. Ontario Ministry of the Environment.

473e MACIOROWSKI, H.D. 1977 Invertebrate bioassay-why not! pp.237-249 *in*: G.R. Craig, (ed.) Second Annual Toxicity Workshop, 1975, Proceedings. Ontario Ministry of the Environment.

473f DE MARCH, B.G.E. 1977 The culture of *Hyalella azteca* for experimental use. pp. 299-301 *in*: G.R. Craig, (ed.) Second aquatic toxicity workshop, 1975, Proceedings. Ontario Ministry of the Environment.

474 BARICA, J. 1977 Nitrogen regime of shallow eutrophic lakes on the Canadian prairies. Prog.Wat.Technol. 8(4/5): 313-321.

475 FRANZIN, W.G.& J.W. CLAYTON 1977 A biochemical genetic study of zoogeography of lake whitefish (*Coregonus clupeaformis*) in western Canada. J.Fish.Res.Board Can. 34(5): 617-625.

476 LOCKHART, W.L., D.A. METNER, & J. SOLOMON 1977 Methoxychlor residue studies in caged and wild fish from the Athabasca River, Alberta, following a single application of blackfly larvicide. J.Fish.Res.Board Can. 34(5): 626-632.

*477 SAETHER, O.A. 1977 Taxonomic studies on Chironomidae: *Nanocladius, Pseudochironomus,* and the *Harnischia* complex. Fish.Res.Board Can.

478 MADDER, M.C.A., D.M. ROSENBERG & A.P. WIENS 1977 Larval cocoons in *Eukiefferiella claripennis* (Diptera: Chironomidae). Can. Entomol. 109(6): 891-892.

479 SOLOMON, J. & W.L. LOCKHART 1977 Rapid preparation of micro sample and gas-liquid chromatographic determination of methoxychlor residues in animal tissues and water. J.Ass.Off.Anal.Chem. 60(3): 690-695.

480 EVANS, R.E. & T.J. HARA 1977 Histochemical localization of phospholipids in the olfactory epithelium of fish. Can.J.Zool. 55(5): 776-781.

481 CLARKE, R.McV. 1977 The use of multivariate techniques in analysing effects of industrial effluents on benthic communities in central Canada. pp.133-141 *in*: J.S. Alabaster (ed.) Biological monitoring of inland fisheries. Barking, Essex, Applied Science Publishers.

**Available from: Supply and Services Canada, Printing and Publishing, Ottawa, Canada, K1A 0S9 (prices: $7.00, $6.00 & $6.00 respectively).*

REPRINTS

482 CLARKE, R.McV., H.A. HAWKES & R.T. OGLESBY 1977 Summary of papers presented. pp.207-214 *in*: J.S. Alabaster, (ed.) Biological monitoring of inland fisheries. Barking, Essex, Applied Science Publishers.

482a FLANNAGAN, J.F. 1977 Life cycles of some common aquatic insects of the Athabasca River, Alberta. AOSERP Report, 11: x + 20 p.

483 SCHERER, E. 1977 Behavioural assays - principles, results and problems. pp.33-40 *in*: Proceedings, 3rd Aquatic Toxicity Workshop, Halifax, N.S., Nov.2-3, 1976. Environmental Protection Service, Tech. Rep. EPS-5-AR-77-1.

484 MACIOROWSKI, H.D., R.McV. CLARKE, & E. SCHERER 1977 The use of avoidance-preference bioassays with aquatic invertebrates. pp.49-58 *in*: Proceedings, 3rd Aquatic Toxicity Workshop, Halifax, N.S., Nov.2-3, 1976. Environmental Protection Service. Tech.Rep. EPS-5-AR-77-1.

485 HOBDEN, B.R. & J.F. KLAVERKAMP 1977 A pharmacological characterization of acetylcholinesterase from rainbow trout (*Salmo gairdneri*) brain. Comp.Biochem.Physiol. 57C(2): 131-133.

486 HECKY, R. 1977 The use of diatom microfossils in interpreting the distribution of pore water solutes in Small Momela Lake (Tanzania). pp. 197-202 *in*: H.L. Golterman, (ed.) Interactions between sediments and fresh water; Proceedings of an international symposium, Amsterdam, September 6-10, 1976. The Hague, Junk & Wageningen, PUDOC.

487 SCHINDLER, D.W., R. HESSLEIN & G. KIPPHUT 1977 Interactions between sediments and overlying waters in an experimentally eutrophied Precambrian Shield lake. pp.235-243 *in*: H.L. Golterman, (ed.) Interactions between sediments and fresh water: Proceedings of an international symposium, Amsterdam, September 6-10, 1976. The Hague, Junk & Wageningen, PUDOC.

488 STAINTON, M.P., M.J. CAPEL & F.A.J. ARMSTRONG 1977 The chemical analysis of fresh water. Can.Fish.Mar.Serv. Misc.Spec.Publ. 25, 2nd ed.: 180 pp.

489 ALLAN, R.J. & G.J. BRUNSKILL 1977 Relative atomic variation (RAV) of elements in lake sediments: Lake Winnipeg, and other Canadian lakes. pp.108-120 *in*: H.L. Golterman, (ed.) Interactions between sediments and fresh water; Proceedings of an international symposium, Amsterdam, September 6-10, 1976. The Hague, Junk & Wageningen, PUDOC.

489a MOSHENKO, R.W. & D.V. GILLMAN 1977 Lake trout of Great Bear and Great Slave Lake. Winnipeg, Fisheries and Marine Service. 1 sheet.

490 HARA, T.J. 1977 Olfactory discrimination between glycine and deuterated glycine by fish. Experientia 33(5): 618-619.

490a LUTZ, A. & M. HENDZEL 1977 Survey of baseline levels of contaminants in aquatic biota of the AOSERP Study Area. AOSERP Report 17, xiv + 50 pp.

491 SCOTT, K.R. & K.-I. HAYAKAWA 1977 Simplified prediction of freezing and thawing times of foods. ASHRAE Trans. 83(1): 541-548.

492 AYLES, G.B. 1977 Trout farming. pp.232, 448-451 *in*: Principles and practices of commercial farming. 5th edition. Winnipeg Faculty of Agriculture, University of Manitoba.

493 KLAVERKAMP, J.F., M. DUANGSAWASDI, W.A. MacDONALD & H.S. MAJEWSKI 1977 An evaluation of fenitrothion toxicity in four life stages of rainbow trout, *Salmo gairdneri*. pp.231-240 *in*: F.L. Mayer & J.L. Hamelink (eds.) Aquatic toxicology and hazard evaluation, Proceedings of the first Annual Symposium on Aquatic Toxicology, Memphis, Tenn. Oct.1976. Am.Soc.Test.Mat.Spec.Tech. Publ. 634.

494 THOMPSON, B.E. & T.J. HARA 1977 Chemosensory bioassay of toxicity of lake waters contaminated with heavy metals from mining effluents. pp.179-189 *in*: Water Pollution Research in Canada, 1977, Proceedings of the Twelfth Canadian Symposium. University of Toronto.

495 SCOTT, D.P. 1977 Reporting range extensions. Can. Field-Nat. 91(3): 219-220.

496 NEWBURY, R.W. & K.G. BEATY 1977 Water budgets in small Precambrian lake basins in northwestern Ontario, Canada. pp.132-139 *in*: Preprint Volume, 2nd Conference on Hydrometeorology, October 25-27, 1977, Toronto. Boston, Mass. American Meteorological Society.

497 MURRAY, D.A.J. & G.R.B. WEBSTER 1977 Analysis of trace organic contaminants in water by gas chromatography. pp.77-99 *in*: 12th Annual Workshop on Pesticide Residue Analysis and 5th Annual Workshop on the Chemistry & Biochemistry of Pesticides (Western Canada), Northstar Inn, Winnipeg, Man., May 10-13, 1977, Proceedings.

498 MUIR, D.C.G. & B.E. BAKER 1977 The formation and disappearance of several triazine herbicide degradation products in soil under field conditions. pp.282-299 *in*: 12th Annual Work-

REPRINTS

498 MUIR, D.C.G. & B.E. BAKER (contd)
shop on Pesticide Residue Analysis & 5th Annual Workshop on the Chemistry & Biochemistry of Pesticides (Western Canada), Northstar Inn, Winnipeg, Man., May 10-13, 1977.

499 DE MARCH, B.G.E. 1977 The effects of photoperiod and temperature on the induction and termination of reproductive resting stage in the freshwater amphipod *Hyalella azteca* (Saussure). Can.J.Zool. 55(10): 1595-1600.

500 AYLES, G.B. & J. BARICA 1977 An empirical method for predicting trout survival in Canadian prairie lakes. Aquaculture 12(2): 181-185.

500a MARSHALL, K.E. 1977 Book review: Discovering books & libraries: a handbook for students in the middle & upper grades. By Florence Damon Cleary, Second edition. H.W. Wilson Company Bronx, N.Y., 1977. 196 p. Price $5.00. ISBN 0-8242-0594-4. Can.Lib. J. 34 (6): 462-463.

501 BARICA, J. 1977 Effect of freeze-up on major ion & nutrient content of a prairie winterkill lake. J.Fish.Res.Board Can. 34(11): 2210-2215.

502 SCHWEIGERT, J.F., F.J. WARD & J.W. CLAYTON 1977 Effects of fry & fingerling introductions on walleye (*Stizostedion vitreum vitreum*) production in West Blue Lake, Manitoba. J.Fish.Res.Board Can. 34(11): 2142-2150.

503 WALLACE, R.R. 1977 A discussion on the use of behaviour by *Gammarus pseudolimnaeus* Bousfield in evaluating environmental stress. pp. 59-67 *in:* Proceedings, 3rd Aquatic Toxicity Workshop, Halifax, N.S., Nov.2-3, 1976. Environmental Protection Service, Tech.Rep. EPS-5-AR-77-1.

504 LOCKHART, W.L., J.F. FLANNAGAN, R.P. MOODY, P. WEINBERGER & R. GREENHALGH 1977 Fenitrothion monitoring in southern Manitoba. pp.233-252 *in:* Proceedings of the symposium on fenitrothion, the long-term effects of its use in forest ecosystems, April 20-22, 1977. National Research Council, Ottawa (NRCC 16073).

TECHNICAL REPORTS

TR615 SHEARER, J.A. 1976 Light extinction measurements in the Experimental Lakes Area - 1974 data. v + 97 p.

TR616 SHEARER, J.A. 1976 Phytoplankton primary production in the Experimental Lakes Area using an incubator technique - 1974 data. v + 142 p.

TR620 MARSHALL, K.E. & M. KAYS 1976 An index to the publications of the staff of the Freshwater Institute, Winnipeg, 1974-75. iv + 55 p.

TR621 MARSHALL, K.E. 1977 A bibliography of the arctic char *Salvelinus alpinus* (L.) complex to 1976. iv + 49 p.
(A small number of copies of this report have been printed on one side of the page only. Users who may wish to cut up their copies may obtain a copy on request).

TR634 DILK, W. 1976 Investigation of the physical feasibility of mobile fish processing plants. vii + 29 p.

TR638 SHEARER, J.A. 1976 Construction and operation of a portable incubator for phytoplankton primary production studies. iv + 22 p.

TR640 AYLES, H.A. 1976 Lake whitefish (*Coregonus clupeaformis* (Mitchill)) in Southern Indian Lake, Manitoba. vi + 28 p.

TR641 BURTON, W. & J.F. FLANNAGAN 1976 An improved river drift sampler. iii + 8 p.

TR646 SHEARER, J.A. & D.R. DeCLERCQ 1976 Light extinction measurements in the Experimental Lakes Area - 1975 data. v + 113 p.

TR647 DeCLERCQ, D.R. & J.A. SHEARER 1976 Phytoplankton primary production in the Experimental Lakes Area using an incubator technique - 1975 data. v + 127 p.

TR651 THOMPSON, P.C. 1976 Transportation as a constraint to the utilization of marine mammals. viii + 46 p.

TR667 READ, C.J. & S.E. STEPHANSSON 1976 Distribution and migration of marine mammals in the central Arctic region. v + 13 p.

TR674 FRANZIN, W.G. & G.A. McFARLANE 1976 Bathymetry and morphometry of Schist Lake, Manitoba (54° 40' N. 101° 45' W.) vi + 8 p.

TR703 FEE, E.J., J.A. SHEARER & D.R. DeCLERCQ 1977 *In vivo* chlorophyll profiles from lakes in the Experimental Lakes Area, northwestern Ontario. vi + 136 p.

TR709 ALEXANDER, D.G., K.J. SUPEENE, B.C.S. CHU & H.D. MACIOROWSKI 1977 The lethal and sublethal effects of secondary-treated sewage effluent on various fish and invertebrates. vi + 21 p.

TR710 LILLIE, W.R. & J.F. KLAVERKAMP 1977 A system for regulating and recording pH of solutions in aquatic flow-through toxicity tests. v + 8 p.

TR711 HEALEY, M.C. 1977 Experimental cropping of lakes: 4. Benthic communities. v + 48 p.
(Available from Pacific Biological Station, Nanaimo, B.C. V9R 5K6)

TR712 CLARKE, R.McV., D.G. ALEXANDER, R.W. BOYCHUK, B.C.S. CHU & H.D. MACIOROWSKI 1977 The effect of chlorination on the acute lethal toxicity of Winnipeg municipal wastes. vii + 16 p.

TR728 SCHERER, E., K.R. SCOTT & S.H. NOWAK 1977 A modular large-scale laboratory system to acclimate and test aquatic organisms. vii + 10 p.

TR741 FEE, E.J. 1977 A computer program for estimating annual primary production in vertically stratified waterbodies with an incubator technique. v + 38 p.

TR749 GUILDFORD, S. 1977 Preimpoundment and immediate post impoundment adenosine triphosphate concentrations in Southern Indian Lake: 1975, 1976. v + 15 p.

DATA REPORTS

(Only available in response to special requests)

DR32 DeCLERCQ, D.R., J.A. SHEARER, S.L. SCHIFF & E.J. FEE 1977 Primary production, respiration, chlorophyll and suspended carbon in the Experimental Lakes Area - 1976 data. v + 94 p.

DR33 SHEARER, J.A. & D.R. DeCLERCQ 1977 Light extinction measurements in the Experimental Lakes Area - 1976 data. v + 103 p.

INDUSTRY REPORTS

IN93 CAUVIN, D.M. & P.C. THOMPSON 1977 Rainbow trout farming: an economic perspective. iv + 24 p.

I N D E X

NOTES

AUTHOR ENTRIES

Example:

CLARK, A.S.
Seasonal calforific values of freshwater zooplankton. J. 28(4) 1971 198

1. An entry is made for each author of those papers with more than one author. The entry does not distinguish between senior and junior authors.

2. Under each author's name, publications are listed in date order - oldest first.

3. Long titles have been shortened to save space.

4. Citations are very brief. Following the period marking the end of the title, citations are in this sequence: periodical, volume, part, date, reprint number.

5. The following single letter abbreviations have been used to indicate these journals:

J.	- Journal of the Fisheries Research Board
B.	- Bulletin of the Fisheries Research Board
L & O	- Limnology and Oceanography
MSP	- Miscellaneous Special Publication. F&MS

6. Citations to Reports lack periodical, volume and part details. The title is followed by the date and report number.

FOR FULL BIBLIOGRAPHIC DETAILS, REFER TO THE ENTRY IN THE LIST OF PUBLICATIONS UNDER THE REPRINT OR REPORT NUMBER.

SUBJECT ENTRIES

Example:

Cisco (*Coregonus albula*)
Triaenophorus crassus, L. Malaren
(LAWLER 1969) 151

1. As an aid to identifying the paper cited, the author and date of publication are given in parentheses before the reprint or report number.

2. Reference should be made to pp. 1-2 of this Report for the explanation of the system of numbering the publications. This number is the final part of each entry.

3. Cross references have been included to help users find the form of entry used in the index. Vertebrate species have been entered under the approved common name with cross references from other common and scientific names. Invertebrates are entered under their scientific names. Names of freshwater fishes follow SCOTT, W.B. & E.J. CROSSMAN 1973 Freshwater Fishes of Canada. B.184.

SOME OF THE COMMON ABBREVIATIONS USED IN THIS INDEX:

Alta	Alberta
BC	British Columbia
C	Central, Carbon
E	East(ern)
ELA	Experimental Lakes Area
Gt	Great
Hg	Mercury
I	Island
L	Lake
Lks	Lakes
Man.	Manitoba
N	North(ern), Nitrogen
NWT	Northwest Territories
Ont.	Ontario
P	Phosphorus
R	River
S	South(ern)
Sask.	Saskatchewan
W	West(ern)
Wpg.	Winnipeg

Acclimation
modular laboratory system to test aquatic organisms (SCHERER 1977) TR728

Accumulation
methoxychlor as larvicide for Simuliidae (WALLACE 1976) 454

Acephate
acute bioassay for cardiovascular and respiratory functions in rainbow trout (MAJEWSKI 1977) 473b

Acetone
acute bioassay for cardiovascular and respiratory functions in rainbow trout (MAJEWSKI 1977) 473b

Acetylcholinesterase
pharmacological characterization from rainbow trout brain (HOBDEN 1977) 485

Acetylene-reduction
aquatic techniques (FLETT 1976) 417
nitrogen fixation in aquatic environments (FLETT 1975) 424

Activity
factors affecting activity of *Gammarus* (WALLACE 1975) 436
monitor for *Gammarus* in evaluating environmental stress (WALLACE 1977) 503

Acidified lake
biochemical observations of fishes (LOCKHART 1976) 448

Adenosine triphosphate
concentrations in Southern Indian Lake, 1975, 1976 (GUILDFORD 1977) TR749

Additives
effects on shelf life of minced sucker flesh (IREDALE 1977) 470

ALEXANDER, D.G.
Avoidance-preference responses of whitefish to mine effluents. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473c
Mobile bioassay laboratory. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473d
Lethal and sublethal effects of secondary-treated sewage effluent on fish and invertebrates. 1977 TR709
Effect of chlorination on acute toxicity of Winnipeg wastes. 1977 TR712

Alexie Lake (N.W.T.)
experimental cropping of lakes. 4. Benthic communities (HEALEY 1977) TR711

Algae
ammonium and urea uptake by freshwater algae (HEALEY 1977) 460

Algal blooms
nitrogen regime of shallow eutrophic lakes (BARICA 1977) 474
prediction of trout survival in prairie lakes (AYLES 1977) 500

ALLAN, R.J.
Relative atomic variation of elements in lake sediments. Interactions between sediments and fresh water. 1977 489

Aluminum
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Amia calva See: Bowfin

Amino acids
pH & olfactory responses to (HARA 1976) 421
structure-activity relationships of, fish olfaction (HARA 1976) 420; (HARA 1977) 463

Ammonia
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
prediction of trout survival in prairie lakes (AYLES 1977) 500

Ammonium
and urea uptake by freshwater algae (HEALEY 1977) 460

Ammonium chloride
effects of secondary-treated sewage effluent on fish and invertebrates (ALEXANDER 1977) TR709

Amphipoda See: *Gammarus* and *Hyallela*

Analysis, chemical
of fresh water (STAINTON 1977) 488
of mercury in fish (HENDZEL 1976) 438
reliability of trace metal determination by flameless atomic absorption (WAGEMANN 1976) 468

Anesthetic induction & recovery times
DDT/DDE exposure in rainbow trout (KLAVERKAMP 1976) 440

Angikuni Lake (N.W.T.)
ecology of arctic populations of fish (JOHNSON 1976) 451

Aphanizomenon
physiological changes during blooms (HEALEY 1976) 409
seasonal mortality of rainbow trout (AYLES 1976) 431

Aquaculture
assessment of nuclear power plant waste heat utilization for freshwater fish farming (GUTHRIE 1975) 432a
nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a
rainbow trout farming: economic perspective (CAUVIN 1977) IR93
status in heated effluents (AYLES 1976) 433
trout farming (AYLES 1977) 492

Aquaculture Study Area (Man.)
effect of freeze-up on ion & nutrient content (BARICA 1977) 501
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
nitrogen regime (BARICA 1977) 474
prediction of trout survival (AYLES 1977) 500
purging muddy-earthy flavor taint from rainbow trout (IREDALE 1976) 410
rainbow trout farming: economic perspective (CAUVIN 1977) IR93
seasonal mortality of rainbow trout (AYLES 1976) 431

AQUACULTURE

Aquaculture Study Area Lakes:
100
purging muddy-earthy flavor taint from rainbow trout (IREDALE 1976) 410
103
nitrogen regime (BARICA 1977) 474
106
rainbow trout farming: economic perspective (CAUVIN 1977) IR93
154
physiological changes during *Aphanizomenon* blooms (HEALEY 1976) 409
156
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
255
isolation of Cyanophyceae spp. producing muddy odor metabilites (TABACHEK 1976) 408
purging muddy-earthy flavor taint from rainbow trout (IREDALE 1976) 410
seasonal mortality of rainbow trout (AYLES 1976) 431
302
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
nitrogen regime (BARICA 1977) 474
318
seasonal mortality of rainbow trout (AYLES 1976) 431
400
seasonal mortality of rainbow trout (AYLES 1976) 431
513
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
587
physiological changes during *Aphanizomenon* blooms (HEALEY 1976) 409
seasonal mortality of rainbow trout (AYLES 1976) 431
624
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
675
seasonal mortality of rainbow trout (AYLES 1976) 431
721
seasonal mortality of rainbow trout (AYLES 1976) 431
786
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
841
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
879
nitrogen regime (BARICA 1977) 474
seasonal mortality of rainbow trout (AYLES 1976) 431
882
seasonal mortality of rainbow trout (AYLES 1976) 431
885
effect of freeze-up on ion & nutrient (BARICA 1977) 501
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
physiological changes during *Aphanizomenon* blooms (HEALEY 1976) 409
seasonal mortality of rainbow trout (AYLES 1976) 431

Aquaculture Study Area Lakes: (contd)
940
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408
958
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408

Arctic
distribution & migration of marine mammals in C. Arctic region (READ 1976) TR667
dynamics of fish populations (JOHNSON 1977) 465

Armstrong, F.A.J.
Grinder for small portions of animal tissue. Lab. Pract. 26(2) 1977 467
Chemical analysis of fresh water. 2nd ed. MSP 25 1977 488

Arsenic
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
seepages from tailings into Kam Lake, NWT, 1974 (WALLACE 1975) 416a
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Artificial substrates
crude oil & zoobenthos colonization in subarctic (ROSENBERG 1975) 416
life cycles of some common aquatic insects of the Athabasca River, Alberta (FLANNAGAN 1977) 482a
responses of Chironomidae to crude oil (ROSENBERG 1976) 449

Atomic absorption spectrophotometry, flameless
determination of mercury in fish (HENDZEL 1976) 438

Athabasca bitumen contamination
analysis of trace organic contaminants in water (MURRAY 1977) 497

Athabasca River (Alta)
improved river drift sampler (BURTON 1976) TR641
life cycles of some common aquatic insects (FLANNAGAN 1977) 482a
methoxychlor residue studies in fish (LOCKHART 1977) 476
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

ATP See: Adenosine triphosphate

Avoidance/preference responses
effects of secondary-treated sewage effluent on fish & invertebrates (ALEXANDER 1977) TR709
whitefish to mine effluents (SUPEENE 1977) 473c

AYLES, G.B.
Seasonal mortality of rainbow trout in small eutrophic lakes. J. 33(4,1) 1976 431
Status of aquaculture in heated effluents in North America. Low-Grade Heat. 1976 433
Trout farming. Principles & practices of commercial farming 1977 492
Prediction of trout survival in prairie lakes. Aquaculture 12(2) 1977 500

AYLES, H.A.
Workshop on environmental effects of reservoirs. 1974 446a
Lake whitefish in S.Indian L. 1976 TR640

Baeoctenus
revision (SAETHER 1976) 471

BAKER, B.E.
Formation and disappearance of triazine degradation products in soil. 12th Ann. Workshop Pesticide Residue Analysis 1977 498

Baptiste Lake, (N.W.T.)
benthic communities (HEALEY 1977) TR711

BARICA, J.
Seasonal mortality of rainbow trout in small eutrophic lakes. J. 33(4,1) 1976 431
Nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong. SCS/76/WP/24 1976 438a
Nitrogen regime of shallow eutrophic lakes. Prog.Wat.Technol. 8(4/5) 1977 474
Prediction of trout survival in prairie lakes. Aquaculture 12(2) 1977 500
Effect of freeze-up on ion and nutrient content of winterkill lake. J. 34(11) 1977 501

Bathymetric chart
bathymetry and morphometry of Schist Lake, Manitoba (FRANZIN 1977) 1976 TR674

BAXTER, R.M.
Workshop on environmental effects of reservoirs 1974 446a

Bear, polar (*Ursus maritimus*)
distribution and migration in C. Arctic region (READ 1976) TR667

Bear-Slave Area (N.W.T.) Lakes:
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

BEATY, K.G.
Budget for small lake basin. J. 33(11) 1976 452
Water budgets in small Precambrian Lakes. 2nd Conf. Hydrometeorol. 1977 496

Beaverlodge Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Beechey Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Behaviour
behavioural assays - principles, results and problems (SCHERER 1977) 483
use of behaviour by *Gammarus* in evaluating environmental stress (WALLACE 1977) 503

Beluga (*Delphinapterus leucas*)
distribution and migration in C. Arctic (READ 1976) TR667
transportation and utilization (THOMPSON 1976) TR651

Benerly Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Benthos
experimental cropping of lakes. 4. Benthic communities (HEALEY 1977) TR711
fenitrothion monitoring in southern Manitoba (LOCKHART 1977) 504

Benthos (contd)
summary of papers presented (Biol.Monit.Inl.Fish.) (CLARKE 1977) 482
use of multivariate techniques in analysing effects of industrial effluents on (CLARKE 1977) 481

Beryllium
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Bibliography
arctic char complex (MARSHALL 1977) TR621
publications of staff of Freshwater Institute 1974-75 (MARSHALL 1976) TR620

Bioassay
acute bioassay for cardiovascular and respiratory functions in rainbow trout (MAJEWSKI 1977) 473b
behavioural assays - principles, results and problems (SCHERER 1977) 483
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712
effects of secondary-treated sewage effluent on fish and invertebrates (ALEXANDER 1977) TR709
evaluation of fenitrothion toxicity in rainbow trout (KLAVERKAMP 1977) 493
evaluation of phenol and sodium azide as reference toxicants in rainbow trout (KLAVERKAMP 1977) 473a
invertebrate bioassay - why not! (MACIOROWSKI 1977) 473e
mobile bioassay laboratory (CHU 1977) 473d
modular laboratory system to test aquatic organisms (SCHERER 1977) TR728
system for regulating and recording pH in flow-through toxicity tests (LILLIE 1977) TR710
use of avoidance-preference bioassays with aquatic organisms (MACIOROWSKI 1977) 484
use of behaviour by *Gammarus* in evaluating environmental stress (WALLACE 1977) 503

Biochemical genetics
study of zoogeography of lake whitefish (FRANZIN 1977) 475

Biogeochemistry
biogeochemical evolution of P limitation (SCHINDLER 1976) (442)

Biological monitoring of inland fisheries
summary of papers presented (CLARKE 1977) 482

Bird predation
seasonal mortality of rainbow trout (AYLES 1976) 431

Blackfly larvicide
life cycles of some common aquatic insects of the Athabasca River, Alberta (FLANNAGAN 1977) 482a
methoxychlor residue studies in fish from Athabasca River (LOCKHART 1977) 476

Blood serum
biochemical observations of fishes in acidified lake (LOCKHART 1976) 448

Book review
discovering books and libraries (MARSHALL 1977) 500a

BOWFIN

Bowfin (*Amia calva*)
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

BOYCHUK, R.W.
Effect of chlorination on acute toxicity of Winnipeg wastes. 1977 TR712

Brain cholinesterase activity
pharmacological characterization from rainbow trout (HOBDEN 1977) 485

BRUNSKILL, G.J.
Transport of P & N in Mackenzie & Yukon R. watersheds. Int.Ver.Limnol. Verh. 19(4) 1975 430
Composition and reactivity of river sediments from Mackenzie valley. Environ.Geol. 1(6) 1977 469
Relative atomic variation of elements in lake sediments. Interactions between sediments and fresh water. 1977. 489

Bullhead, black (*Ictalurus melas*)
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480

Bullhead, brown (*Ictalurus nebulosus*)
biochemical observations in acidified lake (LOCKHART 1976) 448

Burbot (*Lota lota*)
ecology of populations in NWT (JOHNSON 1976) 451
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a
seepages from tailings into Kam Lake, NWT, 1974 (WALLACE 1975) 416a

BURTON, W.
Improved river drift sampler. 1976 TR641
Grinder for small portions of animal tissue. Lab. Pract. 26(2) 1977 467

Caddis flies See: Trichoptera

Cadmium
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
composition and reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments. (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Calcium
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
in blood serum of fishes in acidified lake (LOCKHART 1976) 448
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

CAMPBELL, N.E.R.
Nitrogen fixation in aquatic environments. Int. Ver.Limnol. Verh. 19(4) 1975 424
Aquatic acetylene-reduction techniques. Can.J. Microbiol. 22(1) 1976 417

CAMPBELL, P.
Budget for small lake basin. J. 33(11) 1976 452
Transport of P & N in Mackenzie & Yukon R. watersheds. Int.Ver.Limnol. Verh. 19(4) 1975 430

CAPEL, M.J.
Chemical analysis of fresh water. 2nd ed. MSP 25. 1977 488

Carassius auratus See: Goldfish

Carbon
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
evolution of phosphorus limitation in lakes (SCHINDLER 1977) 459
nutrient budgets for a high arctic lake (DE MARCH 1975) 428a
primary production, respiration, chlorophyll and suspended carbon ELA 1976 (DeCLERCQ 1977) DR32
whole-lake eutrophication experiments (SCHINDLER 1975) 428

Carbon dioxide
Gas exchange in natural waters (SCHINDLER 1975) 418

Carbon-14 uptake
primary production, extracellular release and heterotrophy in two lakes in ELA (NALEWAJKO 1976) 422a

Cardiovascular functions
acute bioassay in rainbow trout (MAJEWSKI 1977) 473b

Caribou Bar Creek (Yukon)
crude oil & zoobenthos colonization (ROSENBERG 1975) 416

Casmir Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Catfish
status of aquaculture in heated effluents (AYLES 1976) 433

Catfish (*Clarias batrachus*)
nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a

Catostomus
catostomus See: Sucker, longnose
commersoni See: Sucker, white

CAUVIN, D.M.
Commentary on: economics of low-grade-heat. Low-Grade Heat 1976 435
Rainbow trout farming: economic perspective. 1977 IR93

Chalk River (Ont.)
methoxychlor as larvicide for Simuliidae (WALLACE 1976) 454

CHANG, P.
zoobenthos ecology of Mackenzie Delta. Int.Ver. Limnol. Verh. 19(2) 1975 413

Chanos chanos See: Milkfish

Char, arctic (*Salvelinus alpinus*)
bibliography (MARSHALL 1977) TR621
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
dynamics of arctic populations (JOHNSON 1977) 465
ecology of populations in NWT (JOHNSON 1976) 451
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480

Char Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451
feeding in arctic Chironomidae (DAVIES 1975) 427
nutrient budgets (DE MARCH 1975) 428a
phytoplankton cycles (KALFF 1975) 430a

Chemical analysis of fresh water (STAINTON 1977) 488

Chemical budget for small lake basin (SCHINDLER 1976) 452

Chironomidae
crude oil & zoobenthos colonization in subarctic (ROSENBERG 1975) 416
experimental cropping of lakes. 4. Benthic communities (HEALEY 1977) TR711
feeding of arctic spp. (DAVIES 1975) 427
female genitalia (SAETHER 1977) 472
impact of man on Bay of Quinte (WARWICK 1975) 429
larval cocoons in *Eukiefferiella*. (MADDER 1977) 478
life histories of *Cricotopus* in Fort Simpson area, NWT (ROSENBERG 1977) 461
nearctic spp. & lake typology (SAETHER 1975) 426
patterns in macrobenthic stream diversity (DE MARCH 1976) 439
responses to crude oil (ROSENBERG 1976) 449
by *Cricotopus* (ROSENBERG 1977) 462
revision (SAETHER 1976) 471
surface sterilization of eggs (TOWNSEND 1976) 444
Symbiocladius equitans (WIENS 1975) 437
taxonomic studies (SAETHER 1977) 477
zoobenthos ecology of Mackenzie Delta (SNOW 1975) 413

Chitty Lake (N.W.T.)
benthic communities (HEALEY 1977) TR711

Chlorination
effect on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712

Chlorine
budget for small lake basin (SCHINDLER 1976) 452

Chlorophyceae
ammonium and urea uptake by freshwater algae (HEALEY 1977) 460

Chlorophyll
effect of freeze-up ion & nutrient content of winterkill lake (BARICA 1977) 501
primary production, respiration, chlorophyll and suspended carbon ELA - 1976 (DeCLERCQ 1977) DR32

Chlorophyll (contd)
profiles in lakes in ELA (FEE 1977) TR703
vertical and seasonal distribution in ELA lakes (FEE 1976) 457

Cholinesterase activity
evaluation of fenitrothion toxicity in rainbow trout (KLAVERKAMP 1977) 493
fenitrothion monitoring in southern Manitoba (LOCKHART 1977) 504
pharamacological characterization from rainbow trout brain (HOBDEN 1977) 485

Chromatography, gas
analysis of trace organic contaminants in water (MURRAY 1977) 497

Chromium
composition and reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Chrosomus
eos See: Dace, northern redbelly
neogaeus See: Dace, finescale

CHU, B.C.S.
Mobile bioassay laboratory. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473d
Lethal and sublethal effects of secondary-treated sewage effluent on fish and invertebrates. 1977 TR709
Effect of chlorination on acute toxicity of Winnipeg wastes. 1977 TR712

Chub, flathead *(Platygobio gracilis)*
methoxychlor residue studies in Athabasca River (LOCKHART 1977) 476

Churchill River (Man.) Diversion
ATP concentrations in Southern Indian Lake, 1975, 1976 (GUILDFORD 1977) TR749

Cisco (*Coregonus artedii*)
ecology of populations in NWT (JOHNSON 1976) 451

Cisco, Arctic (*Coregonus autumnalis*)
ecology of populations in NWT (JOHNSON 1976) 451

Cisco, least (*Coregonus sardinella*)
ecology of populations in NWT (JOHNSON 1976) 451

Cladocera
zoobenthos ecology of Mackenzie Delta (SNOW 1975) 413

Clarias batrachus See: Catfish

Claire Lake (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

CLARKE, R.McV.
Use of multivariate techniques in analysing effects of industrial effluents on benthic

CLARKE

CLARKE, R.McV. (contd)
communities in central Canada. (Biol.Monit.Inl. Fish.)1977 481
Summary of papers presented. (Biol.Monit.Inl. Fish.)1977 482
Use of avoidance-preference bioassays with aquatic invertebrates. EPS-5-AR-77-1. 1977 484
Effect of chlorination on acute toxicity of Winnipeg wastes. 1977 TR712

CLAYTON, J.W.
Toxicity of synthetic oil to fish. Environ. Physiol.Biochem. 5(4) 1975 432
Biochemical genetic study of zoogeography of lake whitefish. J. 34(5) 1977 475
Effects of fry introductions on walleye production in West Blue Lake. J. 34(11) 1977 502

Clearwater River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Clinton-Colden Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Cobalt
composition and reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468

Computer program for estimating primary production (FEE 1977) TR741

Computers
proposal regarding bibliographic search-retrieval systems (KELEHER 1976) 458

Copepoda
zoobenthos ecology of Mackenzie Delta (SNOW 1975) 413

Copper
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
composition and reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
mercury & copper & olfactory response in rainbow trout (HARA 1976) 441
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
seepages from tailings into Kam Lake, NWT 1974 (WALLACE 1975) 416a
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a
use of avoidance-preference bioassays with aquatic organisms (MACIOROWSKI 1977) 484

Coregonus
artedii See: Cisco
autumnalis See: Cisco, Arctic
clupeaformis See: Whitefish, Lake
nasus See: Whitefish, broad
sardinella See: Cisco, least

Coturnix coturnix japonica See: Quail, Japanese

Cough response
acute bioassay for cardiovascular and respiratory functions in rainbow trout (MAJEWSKI 1977) 473b

Cousin's Lake. (Man.)
ATP concentrations 1975, 1976 (GUILDFORD 1977) TR749

Crayfish See: *Oroonectes*

Cricotopus
life histories in Fort Simpson area, NWT (ROSENBERG 1977) 461
responses to crude oil contamination (ROSENBERG 1977) 462

Culaea inconstans See: Stickleback, brook

Culture of *Hyallela azteca* (DE MARCH 1977) 473f

Currents, water
influence on activity of *Gammarus* (WALLACE 1975) 436

Cyanide
seepages from tailings into Kam Lake, NWT 1974 (WALLACE 1975) 416a

Cyanophyceae
ammonium and urea uptake (HEALEY 1977) 460
isolation of spp. producing muddy odor metabolites (TABACHEK 1976) 408
physiological changes during *Aphanizomenon* blooms (HEALEY 1976) 409
prediction of trout survival in prairie lakes (AYLES 1977) 500
seasonal mortality of rainbow trout (AYLES 1976) 431

Dace, finescale (*Chrosomus neogaeus*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504

Dace, northern redbelly (*Chrosomus eos*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504

DANELL, R.
evaluation of phenol and sodium azide as reference toxicants in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473a

Daphnia
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709

Daphnia pulex
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712

Darter See: Johnny darter

Data transmission speeding up batch telemetry (SCOTT 1976) 473

DAVIES, I.J.
Feeding in arctic Chironomidae. Int.Ver.Limnol. Verh. 19(4) 1975 427

DDE/DDT
exposure in rainbow trout (KLAVERKAMP 1976) 440

DeCLERCQ, D.R.
Light extinction measurements ELA 1975. 1976 TR646
Phytoplankton production in ELA 1975. 1976 TR647

DeCLERCQ, D.R. (contd)
In vivo chlorophyll profiles in lakes in ELA. 1977 TR703
Primary production, respiration, chlorophyll and suspended carbon ELA 1976. 1977 DR32
Light extinction measurements in the ELA 1976. 1977 DR33

Dehydrogenase
Biochemical genetic study of zoogeography of lake whitefish (FRANZIN 1977) 475

DE MARCH, B.G.E.
Patterns in macrobenthic stream diversity. J. 33(6) 1976 439
Culture of *Hyallela azteca*. 2nd Ann. Aquatic Toxicity Workshop, Proc. 1977 473f
Effects of photoperiod and temperature on reproductive resting stage in *Hyallela*. Can.J. Zool. 55(10) 1977 499

DE MARCH, L.
Nutrient budgets for a high arctic lake. Int. Ver.Limnol.Verh. 19(1) 1975 428a

Delphinapterus leucas See: Beluga

Diatoms
use of diatom microfossils in interpreting distribution of pore water solutes (HECKY 1977) 486

DILK, W.
Mobile fish processing plants. 1976 TR634

Diptera
improved river drift sampler (BURTON 1976) TR641
See also: Chironomidae
Simulium

Dismal Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Disodium EDTA
effects on shelf life of minced sucker flesh (IREDALE 1977) 470

Diversity
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Douglas Lake (Man.)
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494

Drift
experimental sediment addition, Harris R. (ROSENBERG 1975) 414
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504
improved river drift sampler (BURTON 1976) TR641

Drygeese Lake (N.W.T.)
benthic communities (HEALEY 1977) TR711

DUANGSAWASDI, M.
Evaluation of fenitrothion toxicity in rainbow trout. ASTM STP 634 1977 493

Dubawnt Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

EARP
federal EARP process (PATTERSON 1977) 472a

Ecology of arctic populations of fish in NWT (JOHNSON 1976) 451

Economics
of low-grade heat (CAUVIN 1976) 435
rainbow trout farming: economic perspective (CAUVIN 1977) IR93
transportation & utilization of marine mammals (THOMPSON 1976) TR651

Eggs
Chironomidae surface sterilization of Chironomid eggs (TOWNSEND 1976) 444
fish evaluation of fenitrothion toxicity in rainbow trout (KLAVERKAMP 1977) 493

Electron microscopy
structure of cells in hypophyseal rostral *pars distalis* of fish (LEATHERLAND 1976) 419

Ellice Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

ELLIOTT, S.
Transport of P & N in Mackenzie & Yukon R. watersheds. Int.Ver.Limnol. Verh. 19(4) 1975 430

Ells River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

English River at Pine Falls (Man.)
use of multivariate techniques in analysing effects of industrial effluents on benthic communities (CLARKE 1977) 481

Environmental Assessment & Review Process
federal EARP process (PATTERSON 1977) 472a

Environmental impact statement boondogle (SCHINDLER (1976) 445

Environmental impact studies on sedimentation in Mackenzie & Porcupine River drainages (ROSENBERG 1977) 464

Environmental quality, research
aquatic environmental quality: toxicology (HAMILTON 1976) 453

Environmental stress
use of behaviour by *Gammarus* in evaluating (WALLACE 1977) 503

Ephemeroptera
ectoparasite *Symbiocladius equitans* (WIENS 1975) 437
Hexagenia rigida (FRIESEN 1976) 456
improved river drift sampler (BURTON 1976) TR641
life cycles in Athabasca R. Alta (FLANNAGAN 1977) 482a
parthenogenesis (FRIESEN 1976) 456
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Erignathus barbatus See: Seal, bearded

Esox lucius See: Pike, northern

ETHEOSTOMA
Etheostoma nigrum See: Johnny darter

Ethnography
Great Bear Lake (JOHNSON 1975) 447

Ethyl *m*-aminobenzoate methanesulphonate See: M.S. 222

Eukiefferiella larval cocoons (MADDER 1977) 478

Eutrophication
biochemical evolution of P limitation (SCHINDLER 1976) 442
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
evolution of phosphorus limitation in lakes (SCHINDLER 1977) 459
interactions between sediments overlying waters (SCHINDLER 1977) 487
nutrient dynamics in inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a
whole-lake experiments (SCHINDLER 1975) 428

EVANS, K.W.
Symbiocladius equitans. Ent.Germ. 2(2) 1975 437

EVANS, R.E.
Histochemical localization of phospholipids in olfactory epithelium of fish. Can.J.Zool. 55(5) 1977 480

Experimental Lakes Area (Ont.)
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
evolution of phosphorus limitation (SCHINDLER 1977) 459
interaction between sediments & overlying waters (SCHINDLER 1977) 487
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
orthophosphate concentration & flux in epilimnia (LEVINE 1975) 429a
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, extracellular release & heterotrophy (NALEWAJKO 1976) 422a
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
some problems with heterotrophic-uptake methodology (THOMPSON 1974) 408a
water budgets (NEWBURY 1977) 496

Experimental Lakes Area Lakes:
114
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
120
light extinction measurements 1974 (SHEARER 1976) 1976) TR615
phytoplankton production 1974 (SHEARER 1976) TR616
223
chlorophyll profiles (FEE 1977) TR703
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
224
chlorophyll profiles (FEE 1977) TR703
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
226
aquatic acetylene-reduction techniques (FLETT 1976) 417
biogeochemical evolution of P limitation (SCHINDLER 1976) 442
chlorophyll profiles (FEE 1977) TR703
evolution of P limitation in lakes (SCHINDLER 1977) 459
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
whole-lake eutrophication experiments (SCHINDLER 1975) 428
227
biogeochemical evolution of P limitation (SCHINDLER 1976) 442
chlorophyll profiles (FEE 1977) TR703
control of methane oxidation (RUDD 1976) 443
evolution of P limitation in lakes (SCHINDLER 1977) 459
interactions between sediments & overlying waters (SCHINDLER 1977) 487
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
methane oxidation (RUDD 1975) 425
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455
orthophosphate concentration & flux in epilimnia (LEVINE 1975) 429a
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, extracellular release & heterotrophy (NALEWAJKO 1976) 422a
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
whole-lake eutrophication experiments (SCHINDLER 1975) 428
228
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
light extinction measurements
1974 (SHEARER 1976) TR615
phytoplankton production 1974 (SHEARER 1976) TR616

Experimental Lakes Area Lakes (contd)
230
chlorophyll profiles (FEE 1977) TR703
light extinction measurements
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production 1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll and suspended carbon 1976 (DeCLERCQ 1977) DR32
239
budget (SCHINDLER 1976) 452
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, extracellular release & heterotrophy (NALEWAJKO 1976) 422a
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
water budgets (NEWBURY 1977) 496
240
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
water budgets (NEWBURY 1977) 496
261
biogeochemical evolution of P limitation (SCHINDLER 1976) 442
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
evolution of P limitation in lakes (SCHINDLER 1977) 459
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
262
chlorophyll profiles (FEE 1977) TR703
302
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33

Experimental Lakes Area Lakes (contd)
302
orthophosphate concentration & flux in epilimnia (LEVINE 1975) 429a
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
whole-lake eutrophication experiments (SCHINDLER 1975) 428
303
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
water budgets (NEWBURY 1977) 496
304
chlorophyll profiles (FEE 1977) TR703
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
primary production, respiration, chlorophyll & suspended carbon 1976 (DeCLERCQ 1977) DR32
water budgets (NEWBURY 1977) 496
whole-lake eutrophication experiments (SCHINDLER 1975) 428
305
chlorophyll
profiles (FEE 1977) TR703
vertical & seasonal distribution (FEE 1976) 457
light extinction measurements 1974 (SHEARER 1976) TR615
phytoplankton production 1974 (SHEARER 1976) TR616
383
chlorophyll profiles (FEE 1977) TR703
light extinction measurements
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
phytoplankton production
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
403
some problems with heterotrophic-uptake methodology (THOMPSON 1974) 408a
470
light extinction measurements 1975 (SHEARER 1976) TR646
phytoplankton production 1975 (DeCLERCQ 1976) TR647
water budgets (NEWBURY 1977) 496

Extracellular release
primary production, extracellular release and heterotrophy in ELA (NALEWAJKO 1976) 422a

FEE, E.J.
Nutrient cycling radiant & energy in aquatic communities. Photosynthesis & Productivity 1975 455

FEE, E.J. (contd)
Vertical and seasonal distribution of chlorophyll in ELA lakes. L & O 2(6) 1976 457
In vivo chlorophyll profiles in lakes in ELA. 1977 TR703
Computer program for estimating primary production. 1977 TR741
Primary production, respiration, chlorophyll and suspended carbon, ELA 1976. 1977 DR32

Feeding, selective
in arctic Chironomidae (DAVIES 1975) 427

Fenitrothion
acute bioassay for cardiovascular and respiratory functions in rainbow trout (MAJEWSKI 1977) 473b
evaluation of toxicity in rainbow trout (KLAVERKAMP 1977) 493
impact upon Japanese quail (FINDLAY 1975) 411
monitoring in S. Manitoba (LOCKHART 1977) 504
uptake by crayfish (LEONHARD 1975) 412

FINDLAY, G.M.
Impact of fenitrothion upon Japanese quail. Manit. Entomol. 8 1975 411

Fingerling introductions
effects on walleye production in W. Blue L. (SCHWEIGERT 1977) 502

Fiona Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Firebag River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Fish
determination of mercury in (HENDZEL 1976) 438

Fish kills
nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a
See also: Summer-kill

Fish populations
ecology in NWT (JOHNSON 1976) 451

Fish processing plants, mobile,
feasibility study (DILK 1976) TR634

Flameless atomic absorption
reliability in trace metal determination (WAGEMANN 1976) 468

FLANNAGAN, J.F.
Parthenogenesis in *Hexagenia rigida*.Can.Entomol. 108, 1976 456
Improved river drift sampler. 1976 TR641
Life cycles of some common aquatic insects of the Athabasca River, Alberta. AOSERP Report, 11 1977 482a
Fenitrothion monitoring in S. Manitoba. Proc. Symp. Fenitrothion. 1977 504

FLETT, R.J.
Nitrogen fixation in aquatic environments. Int. Ver.Limnol. Verh. 19(4) 1975 424
Aquatic acetylene-reduction techniques. Can.J. Microbiol. 22(1) 1976 417
Control of methane oxidation in Shield lakes. L & O 21(3) 1976 443

Flooding
ATP concentrations in S. Indian L: 1975, 1976 (GUILDFORD 1977) TR749

Food
influence on activity of *Gammarus* (WALLACE 1975) 436
lake whitefish in S.Indian L. (AYLES 1976) TR640

Forest spraying
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504
impact of fenitrothion upon Japanese quail (FINDLAY 1975) 411
uptake of fenitrothion by crayfish (LEONHARD 1975) 412

Fort Simpson (N.W.T.)
life histories of *Cricotopus* (ROSENBERG 1977) 461
responses to crude oil contamination by *Cricotopus*. (ROSENBERG 1977) 462

FRANZIN, W.G.
Biochemical genetic study of zoogeography of lake whitefish. J. 34(5) 1977 475
Bathymetry & morphometry of Schist Lake, Man. 1976, 1977. TR674

Freemaniella
revision (SAETHER 1976) 471

Freezing
simplified prediction of freezing and thawing times (SCOTT 1977) 491

Freshwater Institute
index to publications of staff 1974-75 (MARSHALL 1976) TR620
library (MARSHALL 1976) 446

FRIESEN, M.K.
Parthenogenesis in *Hexagenia rigida*. Can.Entomol. 108 1976 456

Frozen fish
hot water thawing of mullet blocks (SCØTT 1976) 450

Fry introductions
effects of on walleye production in W.Blue L. (SCHWEIGERT 1977) 502

FURUTANI, A.
Control of methane oxidation in Shield Lakes. L & O. 21(3) 1976 443

Gammarus
use of behaviour in evaluating environmental stress (WALLACE 1977) 503

Gammarus lacustris
ecology of arctic populations (JOHNSON 1976) 451
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709
use in avoidance-preference bioassays (MACIOROWSKI 1977) 484

Gammarus pseudolimnaeus
activity (WALLACE 1975) 436

Gammatacanthus loricatus
ecology of populations in NWT (JOHNSON 1976) 451

Gas exchange in natural waters (SCHINDLER 1975) 418

Gas-liquid chromatography
determination of methoxychlor residues (SOLOMON 1977) 479

Gasterosteus aculeatus See: Stickleback, three-spine

Gaviafaeces Lake (N.W.T.)
dynamics of fish populations (JOHNSON 1977) 465
ecology of fish populations (JOHNSON 1976) 451

Genetics
biochemical genetic study of zoogeography of lake whitefish (FRANZIN 1977) 475

George Lake (Ont.)
biochemical observations of fishes (LOCKHART 1976) 448

Geosmin
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408

GILLMAN, D.V.
Lake trout of Great Bear and Great Slave Lake. Winnipeg, F.& M.S. 1977 489a

Glycine
olfactory discrimination between glycine and deuterated glycine by fish. (HARA 1977) 490

Goldeye (*Hiodon alosoides*)
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Goldfish (*Carrasius auratus*)
olfactory responses to skin mucous substances (HARA 1976) 422
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

Grace Lake (N.W.T.)
seepages from tailings 1974 (WALLACE 1975) 416a

GRAHAM, B.W.
Transport of P & N in Mackenzie & Yukon R. watersheds. Int.Ver.Limnol. Verh. 19(4) 1975 430
Toxicity of synthetic oil to fish. Environ. Physiol.Biochem. 5(4) 1975 432
Composition & reactivity of river sediments from Mackenzie valley. Environ.Geol. 1(6) 1977 469

Grayling, Arctic (*Thymallus arcticus*)
ecology of populations in NWT (JOHNSON 1976) 451
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Great Bear Lake (N.W.T.)
dynamics of fish populations (JOHNSON 1977) 465
ecology of fish populations (JOHNSON 1976) 451
lake trout (MOSHENKO 1977) 489a
history (JOHNSON 1975) 447

Great Slave Lake (N.W.T.)
lake trout (MOSHENKO 1977) 489a

GREENHALGH, R.
Fenitrothion monitoring in S. Manitoba. Proc. Symp. Fenitrothion. 1977 504

Grenier Lake, (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

GRIFT, N.
DDT/DDE exposure & anesthetic induction & recovery in rainbow trout. J. 33(6) 1976 440

Grinder
for small portions of animal tissue (ARMSTRONG 1977) 467

Groundwater flow
budget for small lake basin (SCHINDLER 1976) 452

Growth
lake whitefish in S.Indian L. (AYLES 1976) TR640
of fish cooling water discharges & environmental enhancement (PATALAS 1976) 434

GUILDFORD, S.
ATP concentrations in S. Indian L. 1975, 1976. 1977 TR749

Gullrock Lake (Ont.)
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Guppy (*Poecilia reticulata*)
toxicity of synthetic oil to fish (LOCKHART 1975) 432

GUTHRIE, J.E.
Assessment of nuclear power plant waste heat utilization for freshwater fish farming. AECL-4924 1975 432a

HALE, R.A.
Workshop on environmental effects of reservoirs. 1974 446a

HAMILTON, R.D.
Some problems with heterotrophic-uptake methodology. Effect of ocean environment on microbial activities. 1974 408a
Nitrogen fixation in aquatic environments. Int. Ver.Limnol.Verh. 19(4) 1975 424
Methane oxidation in eutrophic Shield lake.Int.Ver. Limnol.Verh. 19(4) 1975 425
Aquatic acetylene-reduction techniques. Can.J. Microbiol. 22(1) 1976 417
Control of methane oxidation in Shield lakes.L & O 21(3) 1976 443
Surface sterilization of chironomid eggs. Can.Ent. 108(6) 1976 444
Aquatic environmental quality: toxicology. J.33 (11) 1976 453

HARA, T.J.
Structure-activity relationships of amino acids in fish olfaction. Comp.Biochem.Physiol. 54A(1) 1976 420
pH & olfactory responses to amino acids. Comp. Biochem.Physiol. 54A(1) 1976 421
Olfactory responses to skin mucous substances. Comp.Biochem.Physiol. 54A(1) 1976 422
Mercury & copper & olfactory response in rainbow trout. J. 33(7) 1976 441

HARA. T.J. (contd)
Structure-activity relationships of amino acids in fish olfaction. Comp.Biochem.Physiol. 56A (4) 1977 463
Histochemical localization of phospholipids in olfactory epithelium of fish. Can.J.Zool. 55(5) 1977 480
Olfactory discrimination between glycine by fish. Experientia 33(5) 1977 490
Chemosensory bioassay of toxicity of lake waters. Wat.Poll.Res.Canada 1977 494

HARDIN, M.J.
Seepages from tailings into Kam Lake, NWT, 1974. EPS 5-NW-75-3 1975 416a

Harnischia
taxonomic studies (SAETHER 1977) 477

Harris River (N.W.T.)
experimental sediment addition (ROSENBERG 1975) 414

HARRISON, S.E.
Evaluation of phenol and sodium azide as reference toxicants in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473a

HAWKES, H.A.
Summary of papers presented. (Biol.Monit.Inl. Fish.)1977 482

HAYAKAWA, K.I.
Simplified prediction of freezing and thawing times. ASHRAE Trans.83(1) 1977 491

HEALEY, F.P.
Physiological changes during blooms of *Aphanizomenon*. J. 31(1) 1976 409
Ammonium & urea uptake by freshwater algae. Can. J.Bot. 55(1) 1977 460

HEALEY, M.C.
Characteristics of northern trout & lake whitefish populations. Proc. Circumpolar Conf. Northern Ecol. 1975 (Publ. 1977) 466
Experimental cropping of lakes: 4. Benthic communities. 1977 TR711

Heated effluents
assessment of nuclear power plant waste heat utilization for freshwater fish farming. (GUTHRIE 1975) 432a
cooling water discharges & environmental enhancement (PATALAS 1976) 434
economics of low-grade heat (CAUVIN 1976) 435
status of aquaculture in (AYLES 1976) 433

Heavy metals
chemosensory bioassay of toxicity of lake waters. (THOMPSON 1977) 494
See also: Cadmium, Mercury, etc.

HECKY, R.
Use of diatom microfossils in interpreting distribution of pore water solutes. Interactions between sediments and fresh water 1977 486

Hemiptera
survey of baseline levels of contaminants in AOSERP study area. (LUTZ 1977) 490a

HENDZEL, L.L.
Physiological changes during blooms of *Aphanizomenon*. J. 31(1) 1976 409

HENDZEL, M.R.
Determination of mercury in fish. Anal.Chem. 48 (6) 1976 438
Survey of baseline levels of contaminants in aquatic biota. AOSERP Rep. 17 1977 490a

Herbicides
formation & disappearance of triazine degradation products in soil (MUIR 1977) 498

HESSLEIN, R.
Interactions between sediments and overlying waters in experimentally eutrophied Shield lake. Interactions between sediments and fresh water 1977 487

Heterotrophic-uptake methodology
some problems with (THOMPSON 1974) 408a

Heterotrophy
primary production, extracellular release & heterotrophy in two lakes in ELA (NALEWAJKO 1976) 422a

Hexagenia
parthenogenesis in (FRIESEN 1976) 456

Hiodon alosoides See: Goldeye

Histochemistry
localization of phospholipids in olfactory epithelium of fish. (EVANS 1977) 480

Histology
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

History, modern
Great Bear Lake (JOHNSON 1975) 447

HOBDEN, B.R.
Pharmacological characterization of acetylcholinesterase from rainbow trout brain. Comp. Biochem.Physiol. 57C(2) 1977 485

HOLMGREN, S.H.
Phytoplankton cycles in polar lakes. Int.Ver. Limnol.Verh. 19(1) 1975 430a

Homogenizer
grinder for small portions of animal tissue (ARMSTRONG 1977) 467

Hong Kong
Nutrient dynamics in eutrophic inland waters (BARICA 1976) 438a

HOWE, G.J.
Impact of fenitrothion upon Japanese quail. Manit. Entomol. 8 1975 411

Hyalella azteca
benthic communities NWT (HEALEY 1977) TR711
culture (DE MARCH 1977) 473f
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712
effects of photoperiod & temperature on reproductive resting stage (DE MARCH 1977) 499

Hyalella azteca (contd)
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Hybopsis gracilis See: Chub, flathead

Hyde Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Hydrobaenus
revision (SAETHER 1976) 471

Hydrogen ion budget for small lake basin (SCHINDLER 1976) 452

Hydrolysis of a synthetic oil (WAGEMANN 1975) 415

HYNES, H.B.N.
Activity of *Gammarus pseudolimnaeus*. Freshwat. Biol. 5(4) 1975 436
Methyoxychlor as larvicide for Simuliidae. Env. Pollut. 10(4) 1976 454

Hypohysis, *pars distalis*
cell structure in fish (LEATHERLAND 1976) 419

Ictalurus
melas See: Bullhead, black
nebulosus See: Bullhead, brown

IMOL-S-140
environmental & toxicological aspects (WAGEMANN 1975) 415
toxicity to fish (LOCKHART 1975) 432

Incubator technique
computer program for estimating primary production (FEE 1977) TR741
phytoplankton production in ELA 1975 (DeCLERCQ 1976) TR647
portable incubator for primary production studies (SHEARER 1976) TR638

Index to publications of staff of Freshwater Institute, 1974-75. (MARSHALL 1976) TR620

Industrial effluents
summary of papers presented· Biol.Monit.Inl.Fish. (CLARKE 1977) 482
use of multivariate techniques in analysing effects on benthic communities (CLARKE 1977) 481

Information retrieval
book review: discovering books and libraries (MARSHALL 1977) 500a
proposal regarding computer bibliographic search-retrieval systems (KELEHER 1976) 458

Insecticides See: Fenitrothion
Methoxychlor, etc.

Insects, aquatic
life cycles of some in the Athabasca R., Alta (FLANNAGAN 1977) 482a

Invertebrates
bioassay - why not! (MACIOROWSKI 1977) 473e
drift, experimental sediment addition, Harris R. (ROSENBERG 1975) 414
use of avoidance-preference bioassays (MACIOROWSKI 1977) 484

IREDALE, D.G.
Purging muddy-earthy flavor taint from rainbow trout. J. 33(1) 1976 410
Effects of additives on shelf life of minced sucker flesh. J. 34(3) 1977 470

Iron
budget for small lake basin (SCHINDLER 1976) 452
composition & reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Isozyme tagging
effects of fry introductions on walleye productions in W.Blue L.-(SCHWEIGERT 1977) 502

JAMIESON, D.M.
Determination of mercury in fish. Anal.Chem. 48(6) 1976 438

Johnny darter (*Etheostoma nigrum*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504

JOHNSON, L.
Great Bear Lake. Arctic 28(4) 1975 447
Dynamics of arctic fish populations. Proc.Circumpolar Conf.Northern Ecol. 1975 (Publ. 1977) 465
Ecology of arctic populations of fish in NWT. J 33(11) 1976 451

Kakisa Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

KALFF, J.
Phytoplankton cycles in polar lakes. Int.Ver. Limnol.Verh. 19(1) 1975 430a

Kam Lake (N.W.T.)
seepages from tailings 1974 (WALLACE 1975) 416a

Kathawachaga Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 415

KAUSHIK, N.K.
Activity of *Gammarus pseudolimnaeus*. Freshwat. Biol. 5(4) 1975 436

KAYS, M.
Index to publications of staff of Freshwater Institute, 1974-75. 1976 TR620

KELEHER, J.J.
Proposal regarding computer bibliographic search-retrieval systems & libraries & clients. Manit. Lib.Ass.Bull. 7(1) 1976 458

Keller Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

KENNEY, A.
Evaluation of phenol & sodium azide as reference toxicants in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977. 473a

Keyhole Lake (N.W.T.)
dynamics of fish populations (JOHNSON 1977) 465
ecology of fish populations (JOHNSON 1976) 451

KIPPHUT, G.
Interactions between sediments & overlying waters in experimentally eutrophied Shield lake. Interactions between sediments & fresh water. 1977 487

KLAVERKAMP, J.F.
DDT/DDE exposure & anesthetic induction & recovery in rainbow trout. J. 33(6) 1976 440
Evaluation of phenol & sodium azide as reference toxicants in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473a
Acute bioassay for cardiovascular & respiratory functions in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977. 473b
Pharmacological characterization of acetylcholinesterase from rainbow trout brain. Comp.Biochem. Physiol. 57C(2) 1977. 485
Evaluation of fenitrothion toxicity in rainbow trout. ASTM STP 634 1977 493
System for regulating & recording pH in flow-through toxicity tests 1977. TR710

KLING, H.J.
Phytoplankton cycles in polar lakes. Int.Ver. Limnol.Verh. 19(1) 1975 430a
Seasonal mortality of rainbow trout in small eutrophic lakes. J. 33(4,1) 1976 431

Klondike Lake. (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Laguna de Bay (Philippines)
nutrient dynamics in eutrophic inland waters (BARICA 1976) 438a

Lake monitoring
summary of papers presented. Biol.Monit.Inl.Fish. (CLARKE 1977) 482

La Martre, Lac (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Lamprey, sea (*Petromyzon marinus*)
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

Land use conflicts
federal EARP process (PATTERSON 1977) 472a

LARK, J.G.I.
Seasonal mortality of rainbow trout in small eutrophic lakes. J. 33(4,1) 1976 431

Larval cocoons in *Eukiefferiella* (MADDER 1977) 478

LAW, Y.M.C.
Mercury & copper & olfactory response in rainbow trout. J. 33(7) 1976 441

Lead
composition & reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

LEATHERLAND, J. F.
Structure of cells in hypophyseal rostral *pars distalis*. Cell Tissue Res. 166 1976 419

LEONHARD, S.L.
Uptake of fenitrothion by caged crayfish. Manit. Entomol. 8 1975 412

LEVINE, S.
Orthophosphate concentration and flux in epilimnia of two Canadian Shield lakes. Int.Ver.Limnol. Verh. 19(1) 1975 429a

Liard River, (N.W.T.)
crude oil & zoobenthos colonization (ROSENBERG 1975) 416

Libraries
book review: discovering books & libraries (MARSHALL 1977) 500a

Lichenskie Lake.(Poland)
cooling water discharges & environmental enhancement (PATALAS 1976) 434

Life history
Cricotopus in Fort Simpson area, NWT (ROSENBERG 1977) 461

Light
extinction measurements ELA
1974 (SHEARER 1976) TR615
1975 (SHEARER 1976) TR646
1976 (SHEARER 1977) DR33
influence on activity of *Gammarus* (WALLACE 1975)
response, intensity & vertical positioning in walleye (SCHERER 1976) 423

LILLIE, W.R.
System for regulating & recording pH in flow-through toxicity tests. 1977 TR710

Literature review
status of aquaculture in heated effluents (AYLES 1976) 433

Little Nauyuk Lake, (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

LOCKHART, W.L.
Impact of fenitrothion upon Japanese quail. Manit. Entomol. 8 1975 411
Toxicity of synthetic oil to fish. Environ.Physiol. Biochem. 5(4) 1975 432
DDT/DDE exposure & anesthetic induction & recovery in rainbow trout. J. 33(6) 1976 440
Biochemical observations of fishes in an acidified lake. Proc.1st Int.Symp.Acid Precip. 1976 448
Methoxychlor residue studies in fish from Athabasca R. J. 34(5) 1977. 476
Rapid preparation of micro sample & GLC determination of methoxychlor residues. J.Ass.Off.Anal.Chem. 60(3) 1977 479
Fenitrothion monitoring in S.Manitoba. Proc.Symp. Fenitrothion 1977 504

Lota lota See: Burbot

Low-grade heat See: Heated effluents

Lubriculidae
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

LUTZ, A.
Biochemical observations of fishes in an acidified lake. Proc.1st Int.Symp.Acid Precip. 1976 448

LUTZ, A. (contd)
Survey of baseline levels of contaminants in aquatic biota. AOSERP Rep. 17 1977 490a

Lyngbya
muddy odor metabolites (TABACHEK 1976) 408

MacDONALD, S.
Mercury & copper & olfactory response in rainbow trout. J. 33(7) 1976 441
Olfactory responses to skin mucous substances. Comp.Biochem.Physiol. 54A(1) 1975 422

MacDONALD, W.A.
Evaluation of fenitrothion toxicity in rainbow trout. ASTM STP 634 1977 493

MacDougall Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

MACIOROWSKI, H.D.
Invertebrate bioassay - why not! 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473e
Use of avoidance-preference bioassays with aquatic invertebrates. EPS-5-AR-77-1 1977 484
Lethal & sublethal effects of secondary-treated sewage effluent on fish & invertebrates. 1977 TR709
Effect of chlorination on acute toxicity of Winnipeg wastes. 1977 TR712

MacKay River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Mackenzie Delta (N.W.T.)
composition & reactivity of sediments (WAGEMANN 1977) 469
zoobenthos ecology (SNOW 1975) 413
East Channel crude oil & zoobenthos colonization (ROSENBERG 1975) 416
oxygen, pH, conductivity & temperature regimes (SNOW 1975) 413

Mackenzie Delta Lakes
1
oxygen, pH, conductivity & temperature regimes (SNOW 1975) 413
7
oxygen, pH, conductivity & temperature regimes (SNOW 1975) 413

Mackenzie River (N.W.T.)
design for environmental impact studies on sedimentation (ROSENBERG 1977) 464
transport of P & N (BRUNSKILL 1975) 430

MADDER, M.C.A.
Larval cocoons in *Eukiefferiella*. Can.Entomol. 109(6) 1977 478

Magnesium
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion and nutrient content of winterkill lake (BARICA 1977) 501
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Maguse Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

MAJEWSKI, H.S.
Acute bioassay for cardiovascular & respiratory functions in rainbow trout. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977 473b
Evaluation of fenitrothion toxicity in rainbow trout. ASTM STP 634 1977 493

Major ions
effect of freeze-up ion & nutrient content of winterkill lake (BARICA 1977) 501

Mammals, marine
distribution & migration in C.Arctic (READ 1976) TR667
transportation & utilization (THOMPSON 1976) TR651

Manganese
composition & reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

MARSHALL, K.E.
Freshwater Institute Library. Manit.Lib.Ass.Bull. 6(4) 1976 446
Proposal regarding computer bibliographic search-retrieval systems & libraries & clients. Manit. Lib.Ass.Bull. 7(1) 1976 458
Index to publications of staff of Freshwater Institute, 1974-75. 1976 TR620
Book review: discovering books & libraries. Can. Lib. J. 34(6) 1977 500a
Bibliography of the arctic char complex. 1977 TR621

Martin River (N.W.T.)
Symbiocladius equitans (WIENS 1975) 437

Mayflies See: Ephemeroptera

Maze Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

McFARLANE, G.A.
Bathymetry & morphometry of Schist Lake, Man. 1976, 1977 TR674

MDH isozyme phenotype
effects of fry introductions on walleye production in W. Blue L. (SCHWEIGERT 1977) 502

Meat
simplified prediction of freezing & thawing times (SCOTT 1977) 491

Melidadine Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Mercury
copper & mercury & olfactory response in rainbow trout (HARA 1976) 441
determination in fish (HENDZEL 1976) 438
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Meretta Lake (N.W.T.)
phytoplankton cycles (KALFF 1975) 430a

MERIDIAN
Meridian Lake (Man.)
chemosensory bioassay of toxicity of waters (THOMPSON 1977) 494

MERRITT, W.F.
Methyoxychlor as larvicide for Simuliidae. Env. Pollut. 10(4) 1976 454

Mesidothea entomon
ecology of populations in NWT (JOHNSON 1976) 451

Methane
oxidation
control (RUDD 1976) 443
in eutrophic Shield lake (RUDD 1975) 425

Methoxychlor
larvicide for Simuliidae. (WALLACE 1976) 454
residues
rapid preparation of micro sample & GLC determination (SOLOMON 1977) 479
studies in fish from Athabasca R. (LOCKHART 1977) 476

2-methylisoborneol
isolation of Cyanophyceae spp. producing muddy odor metabolites (TABACHEK 1976) 408

METNER, D.A.
DDT/DDE exposure & anesthetic induction & recovery in rainbow trout. J. 33(6) 1976 440
Methoxychlor residue studies in fish from Athabasca R. J. 34(5) 1977 476

Michigan, Lake
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455

Micro samples
rapid preparation of, & GLC determination of methoxychlor residues (SOLOMON 1977) 479

Microbiological methods
some problems with heterotrophic-uptake methodology (THOMPSON 1974) 408a

Milkfish (*Chanos chanos*)
nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a

Mine effluents
avoidance-preference responses of whitefish (SUPEENE 1977) 473c

Mine tailings
seepages from, into Kam Lake, NWT 1974 (WALLACE 1975) 416a

Mobile bioassay laboratory (CHU 1977) 473d

Mollusca
zoobenthos ecology of Mackenzie Delta (SNOW 1975) 413

Monodon monoceras See: Narwhal

MOODY, R.P.
Fenitrothion monitoring in S.Manitoba. Proc. Symp.Fenitrothion 1977 504

MORDEN, G.W.
Transport of P & N in Mackenzie & Yukon R. watersheds. Int.Ver.Limnol.Verh. 19(4) 1975 430

Mortality, seasonal
of rainbow trout (AYLES 1976) 431

MOSHENKO, R.W.
Lake trout of Great Bear & Great Slave Lake. Winnipeg, F & M S. 1977 489a

Moxostoma macrolepidotum See: Redhorse, shorthead

M.S. 222
DDT/DDE exposure in rainbow trout (KLAVERKAMP 1976) 440

Mucus, skin
olfactory responses to skin mucous substances (HARA 1976) 422

Muddy odor
metabolites
isolation of Cyanophyceae spp. producing (TABACHEK 1976) 408
purging from rainbow trout (IREDALE 1976) 410

Mudminnow, central (*Umbra limi*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504

Mugil cephalus See: Mullet, grey

MUIR, D.C.G.
Formation & disappearance of triazine degradation products in soil. 12th Ann. Workshop Pesticide Residue Analysis 1977 498

Mullet See: Sucker

Mullet, grey (*Mugil cephalus*)
nutrient dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a

Multivariate techniques
use in analysing effects of industrial effluents on benthic communities in central Canada (CLARKE 1977) 481

Municipal wastes
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712

MURRAY, D.A.J.
Toxicity of synthetic oil to fish. Environ.Physiol.Biochem. 5(4) 1975 432
Analysis of trace organic contaminants in water. 12th Ann. Workshop Pesticide Residue Analysis 1977 497

Muskeg River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Myoxocephalus quadricornis See: Sculpin, deepwater

Mysis relicta
ecology of populations in NWT (JOHNSON 1976) 451

NALEWAJKO, C.
Primary production, extracellular release & heterotrophy in two lakes in ELA. J. 33(2) 1976 422a

Namaycush Lake (N.W.T.)
dynamics of fish populations (JOHNSON 1977) 465
ecology of fish populations (JOHNSON 1976) 451

Nanocladius
taxonomic studies (SAETHER 1977) 477

Narwhal (*Monodon monoceras*)
distribution & migration in C.Arctic (READ 1976) TR667
transportation & utilization (THOMPSON 1976) TR651

Nauyuk Lake (N.W.T.)
dynamics of fish populations (JOHNSON 1977) 465
ecology of fish populations (JOHNSON 1976) 451

NEWBURY, R.W.
Budget for small lake basin. J. 33(11) 1976 452
Water budgets in small Precambrian lakes. 2nd Conf. Hydrometeorol. 1977 496

Nickel
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Nitrogen
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
evolution of limitation in lakes (SCHINDLER 1977) 459
fixation
aquatic acetylene-reduction techniques (FLETT 1976) 417
control of methane oxidation (RUDD 1976) 443
in aquatic environments (FLETT 1975) 424
interactions between sediments and overlying waters in experimentally eutrophied Shield lake (SCHINDLER 1977) 487
nutrient budgets for a high arctic lake (DE MARCH 1975) 428a
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455
regime of shallow eutrophic lakes (BARICA 1977) 474
transport in Mackenzie & Yukon R. watersheds (BRUNSKILL 1975) 430
whole-lake eutrophication experiments (SCHINDLER 1975) 428

Noigi Lake (Man.)
ATP concentrations 1975, 1976 (GUILDFORD 1977) TR749

Nonacho Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

North Henik Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Northwest Territories
ecology of fish populations (JOHNSON 1976) 451

NOWAK, S.H.
Modular laboratory system to test aquatic organisms. 1977 TR728

Nuclear power plant waste heat
assessment of utilization for freshwater fish farming (GUTHRIE 1975) 432a

Nutrients
cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455
dynamics in eutrophic inland waters, Philippines, Thailand & Hong Kong (BARICA 1976) 438a
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501

Odobenus rosmarus See: Walrus

OGLESBY, R.T.
Summary of papers presented.(Biol.Monit.Inl.Fish.) 1977 482

Oil
crude oil & zoobenthos colonization in subarctic (ROSENBERG 1975) 416
responses of Chironomidae to crude oil (ROSENBERG 1976) 449
responses to crude oil contamination by *Cricotopus* (ROSENBERG 1977) 462
tri-aryl phosphate
environmental & toxicological aspects (WAGEMANN 1975) 415
toxicity to fish (LOCKHART 1975) 432

Olfaction in fish
discrimation between glycine and deuterated glycine (HARA 1977) 490
mercury & copper & response in rainbow trout (HARA 1976) 441
pH & responses to amino acids (HARA 1976) 421
responses to skin mucous substances (HARA 1976) 422
structure-activity relationships of amino acids (HARA 1976) 420; (HARA 1977) 463

Olfactory bulbar response
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494

Olfactory epithelium
histochemical localization of phospholipids in (EVANS 1977) 480

Oligochaeta See: Lumbriculidae

Oliveria
revision (SAETHER 1976) 471

Oncorhynchus
kisutch See: Salmon, coho
nerka See: Salmon, sockeye

Ontario, Lake
impact of man on Bay of Quinte (WARWICK 1975) 429

Orconectes virilis
effect of chlorination on actue toxicity of Winnipeg wastes (CLARKE 1977) TR712

ORCONECTES

Orconectes virilis (contd)
uptake of fenitrothion (LEONHARD 1975) 412

Orthocladiinae See: Chironomidae

Oscillatoria
muddy odor metabolites (TABACHEK 1976) 408

Oxygen
control of methane oxidation (RUDD 1976) 443

Oxygen depletion
effect of freeze-up ion & nutrient content of winterkill lake (BARICA 1977) 501

Paleolimnology
impact of man on Bay of Quinte (WARWICK 1975) 429

Paratrissocladius
revision (SAETHER 1976) 471

Parthenogenesis in *Hexagenia rigida* (FRIESEN 1976) 456

Partridge Breast Lake (Man.)
ATP concentrations 1975, 1976 (GUILDFORD 1977) TR749

PATALAS, K.
Commentary on: Cooling water discharges & environmental enhancement.Low-grade heat. 1976 434

PATTERSON, R.J.
The federal EARP process. Manit.Environ.Coun.Stud. 8 1977 472a

PCBs
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Pelecypoda See: *Sphaerium*

PERCY, R.
Structure of cells in hypophyseal rostral *pars distalis*. Cell Tissue Res. 166 1976 419

Pesticide residues
methoxychlor residues
in fish from Athabasca R. (LOCKHART 1977) 476
rapid preparation of micro sample & GLC deteration (SOLOMON 1977) 479
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a
triazine degradation products in soil (MUIR 1977) 498

Petroleum products See: Oil

Petromyzon marinus See: Lamprey, sea

pH
Olfactory responses to amino acids (HARA 1976) 421
system for regulating & recording in flow-through toxicity tests (LILLIE 1977) TR710

Phantom Lake. (Man.)
chemosensory bioassay of toxicity of waters (THOMPSON 1977) 494

Phenol
effects of secondary-treated sewage effluent on fish & invertebrates (ALEXANDER 1977) TR709
evaluation of phenol & sodium azide as reference toxicants in rainbow trout (KLAVERKAMP 1977) 473a
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Phenoxyethanol
DDT/DDE exposure in rainbow trout (KLAVERKAMP 1976) 440

Philippines
nutrient dynamics in eutrophic inland waters (BARICA 1976) 438a

Phoca hispida See: Seal, ringed

Phospholipids
histochemical localization in olfactory epithelium of fish (EVANS 1977) 480

Phosphorus
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
evolution of limitation (SCHINDLER 1976) 442; (SCHINDLER 1977) 459
interactions between sediments and overlying waters (SCHINDLER 1977) 487
nutrient budgets for a high arctic lake (DE MARCH 1975) 428a
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455
orthophosphate concentration & flux in epilimnia of two Canadian Shield lakes (LEVINE 1975) 429a
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
transport in Mackenzie & Yukon R. watersheds (BRUNSKILL 1975) 430
whole-lake eutrophication experiments (SCHINDLER 1975) 428

Photoperiod
effects on reproductive resting stage in *Hyalella* (DE MARCH 1977) 499

Phytoplankton
cycles in polar lakes (KALFF 1975) 430a
evolution of P limitation in lakes (SCHINDLER 1977) 459
portable incubator for primary production studies (SHEARER 1976) TR638
production in ELA
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647

Pike, northern (*Esox lucius*)
ecology of populations in NWT (JOHNSON 1976) 451
Kam Lake, NWT 1974 (WALLACE 1975) 416a
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Pine Creek. (Man.)
fenitrothion monitoring (LOCKHART 1977) 504
uptake of fenitrothion by crayfish (LEONHARD 1975) 412
use of multivariate techniques in analysing effects of industrial effluents on benthic communities (CLARKE 1977) 481

Plankton
summary of papers presented. Biol.Monit.Inl.Fish. (CLARKE 1977) 482
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Platygobio gracilis See: Chub, flathead

Plecoptera
improved river drift sampler (BURTON 1976) TR641
life cycles in Athabasca R. Alta (FLANNAGAN 1977) 482a

Poecilia reticulata See: Guppy

Pontoporeia affinis
benthic communities in NWT (HEALEY 1977) TR711

Porcupine River (Yukon)
design for environmental impact studies on sedimentation (ROSENBERG 1977) 464

Pore water
interactions between sediments & overlying waters in experimentally eutrophied Shield lake (SCHINDLER 1977) 487
solutes
use of diatom microfossils in interpreting distribution (HECKY 1977) 486

Postglacial gene flow
biochemical genetic study of zoogeography of lake whitefish (FRANZIN 1977) 475

Potassium
budget for small lake basin (SCHINDLER 1976) 452

Precambrian Shield lakes See: Experimental Lakes Area

Precipitation
chemical composition
budget for small lake basin (SCHINDLER 1976) 452
nutrient budgets for a high arctic lake (DE MARCH 1975) 428a

Prehistory
Great Bear Lake (JOHNSON 1975) 447

Primary production
computer program for estimating (FEE 1977) TR741
ELA
1974 (SHEARER 1976) TR616
1975 (DeCLERCQ 1976) TR647
extracellular release & heterotrophy in two lakes in ELA (NALEWAJKO 1976) 422a
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455
portable incubator for studies (SHEARER 1976) TR638
respiration, chlorophyll & suspended carbon, ELA 1976 (DeCLERCQ 1977) DR32
vertical & seasonal distribution of chlorophyll in ELA lakes (FEE 1976) 457

Propylene glycol
acute bioassay for cardiovascular & respiratory functions in rainbow trout (MAJEWSKI 1977) 473b

Prosopium cylindaceum See: Whitefish, round

PROWSE, D.R.
Assessment of nuclear power plant waste heat utilization for freshwater fish farming. AECL-4924 1975 432a

Pseudoanabaena catenata
ammonium & urea uptake by freshwater algae (HEALEY 1977) 460

Pseudochironomus
taxonomy (SAETHER 1977) 477

Publications policy
reporting range extensions (SCOTT 1977) 495

Pub Lake (N.W.T.)
seepages from tailings 1974 (WALLACE 1975) 416a

Pulp mill effluent
use of multivariate techniques in analysing effects of industrial effluents on bethic communities in central Canada (CLARKE 1977) 481

Quail, Japanese (*Coturnix coturnix japonica*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504
impact of fenitrothion upon Japanese quail (FINDLAY 1975) 411

Quatre Fourches (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Quinte, Bay of (Ont.)
impact of man on (WARWICK 1975) 429

Radiation
nutrient cycling & radiant energy in aquatic communities (SCHINDLER 1975) 455

Rancidity
effects of additives on shelf life of minced sucker flesh (IREDALE 1977) 470

Range extension reports (SCOTT 1977) 495

Rat River (Man.)
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Rawson Lake See: Experimental Lakes Area Lake 239

READ, C.J.
Distribution & migration of marine mammals in C. Arctic region. 1976 TR667

Red Lake (Ont.)
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Red River (Man.)
effect of chlorination on acute toxicty of Winnipeg wastes (CLARKE 1977) TR712
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Redhorse, shorthead (*Moxostoma macrolepidotum*)
effects of additives on shelf life of minced sucker flesh (IREDALE 1977) 470

Redrock, Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

REDSTONE

Redstone River (N.W.T.)
composition & reactivity of river sediments (WAGEMANN 1977) 469

Relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Reproductive resting stage
effects of photoperiod & temperature on *Hyalella*. (DE MARCH 1977) 499

Research activities, Canadian
aquatic environmental quality: toxicology. (HAMILTON 1976) 453

Reservoirs
workshop on environmental effects of reservoirs (AYLES 1974) 446a

Respiration
acute bioassay for cardiovascular & respiratory functions in rainbow trout (MAJEWSKI 1977) 473b
primary production, respiration, chlorophyll & suspended carbon,ELA 1976 (DeCLERCQ 1977) DR32

Richardson Lake (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

River water quality classification
summary of papers presented. Biol.Monit.Inl.Fish. (CLARKE 1977) 482

ROSENBERG, D.M.
Experimental sediment addition studies, Harris R. Int.Ver.Limnol. Verh. 19(2) 1975 414
Effect of crude oil on zoobenthos colonization in subarctic. Int.Ver.Limnol. Verh. 19(3) 1975 416
Symbiocladius equitans. Ent.Germ. 2(2) 1975 437
Responses of Chironomidae to crude oil. J. 33(9) 1976 449
Responses to crude oil contamination by *Cricotopus*. J. 34(2) 1977 462
Life histories of *Cricotopus* in Fort Simpson area, NWT. J. 34(2) 1977 461
Design for environmental impact studies in sedimentation in Mackenzie & Porcupine River drainages. Proc.Circumpolar Conf. Northern Ecol. 1975. (Publ. 1977) 464
Larval cocoons in *Eukiefferiella*. Can.Entomol. 109(6) 1977 478

Ross Lake (Man.)
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494

RUDD, J.W.M.
Methane oxidation in eutrophic Shield lake. Int. Ver.Limnol. Verh. 19(4) 1975 425
Control of methane oxidation in Shield lakes. L & O 21(3) 1976 443

SAETHER, O.A.
Nearctic chironomids & lake typology. Int.Ver. Limnol. Verh. 19(4) 1975 426
Life histories of *Cricotopus* in Fort Simpson area, NWT. J. 34(2) 1977 461

SAETHER, O.A. (contd)
Responses to crude oil contamination by *Cricotopus*. J. 34(2) 1977 462
Revision of *Hydrobaenus, Trissocladius, Zalutschia & Paratrissocladius*. B.195 1976 471
Female genitalia in Chironomidae. B. 197 1977 472
Taxonomic studies on Chironomidae: *Nanocladius, Pseudochironomus, & Harnischia* complex. B. 196 1977 477

Salmo gairdneri See: Trout, rainbow

Salmon, coho (*Oncorhynchus kisutch*)
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976)

Salvelinus
alpinus See: Char, Arctic
fontinalis See: Trout, brook
namaycush See: Trout, lake

Samplers
improved river drift sampler (BURTON 1976) TR641

Scenedesmus quadricauda
ammonium & urea uptake (HEALEY 1977) 460

SCHERER, E.
Light intensity & vertical positioning in walleye J. 33(2) 1976 423
Behavioural assay - principles, results & problems. EPS-5-AR-77-1 1977 483
Use of avoidance-preference bioassays with aquatic invertebrates. EPS-5-AR-77-1 1977 484
Modular laboratory system to test aquatic organisms. 1977 TR728

SCHIFF, S.L.
Primary production, respiration, chlorophyll & suspended carbon, ELA 1976. 1977 DR32

SCHINDLER, D.W.
Gas exchange in natural waters. L & O 20(6) 1975 418
Whole-lake eutrophication experiments. Int.Ver. Limnol. Verh. 19(4) 1975 428
Nutrient cycling radiant & energy in aquatic communities. Photosynthesis & Productivity 1975 455
Primary production extracellular release & heterotrophy in two lakes in ELA. J.Fish.Res. Board Can. 33(2) 1976 422a
Biogeochemical evolution of P limitation. Environmental Biogeochemistry 2 1976 442
Impact statement boondogle. Science 192 & 193 1976 445
Budget for small lake basin. J. 33(11) 1976 452
Evolution of phosphorus limitation in lakes. Science 195 1977 459
Interactions between sediments & overlying waters in experimentally eutrophied Shield lake. Interactions between sediments & fresh water 1977 487

Schist Lake (Man.)
bathymetry & morphometry (FRANZIN 1977) 1976 TR674
chemosensory bioassay of toxicity of waters (THOMPSON 1977) 494

SCHWEIGERT, J.F.
Effects of fry introductions on walleye production in W. Blue L. J. 34(11) 1977 502

SCOTT, D.P.
Assessment of nuclear power plant waste heat utilization for freshwater fish farming. AECL-4924 1975 432a
Reporting range extensions. Can.Fld.Nat. 91(3) 1977 495

SCOTT, K.R.
Hot water thawing of mullet blocks. Can.Inst. Food Sci.Technol. J. 9(3) 1976 450
Speeding up batch telemetry. Can.Controls Instrum. 15 1976 473
Simplified prediction of freezing and thawing times. ASHRAE Trans. 83(1) 1977 491
Modular laboratory system to test aquatic organisms. 1977 TR728

Sculpin, deepwater (*Myoxocephalus quadricornis*)
ecology of populations in NWT (JOHNSON 1976) 451

Seal, bearded (*Erignathus barbatus*)
distribution & migration in C.Arctic region (READ 1976) TR667

Seal, ringed (*Phoca hispida*)
distribution & migration in C.Arctic region (READ 1976) TR667

Seals
transportation & utilization (THOMPSON 1976) TR651

Sediments
composition & reactivity of Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Sediment addition
experimental sediment addition, Harris R. (ROSENBERG 1975) 414

Sediment/water interaction in experimentally eutrophied Shield lake (SCHINDLER 1977) 487

Sedimentation
design for environmental impact studies on sedimentation in Mackenzie & Porcupine River drainages (ROSENBERG 1977) 464

Sedimentation rates
interactions between sediments & overlying waters in experimentally eutrophied Shield lake (SCHINDLER 1977) 487

Selenium
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Sewage effluent
effects of secondary-treated effluent on fish & invertebrates (ALEXANDER 1977) TR709

SHEARER, J.A.
Light extinction measurements ELA, 1974. 1976 TR615

SHEARER, J.A. (contd)
Phytoplankton production in ELA 1974. 1976 TR616
Portable incubator for primary production studies. 1976 TR638
Light extinction measurements ELA 1975. 1976 TR646
Phytoplankton production in ELA 1975. 1976 TR647
In vivo chlorophyll profiles in lakes in ELA. 1977 TR703
Primary production, respiration, chlorophyll & suspended carbon ELA 1976. 1977 DR32
Light extinction measurements in the ELA 1976. 1977 DR33

Shield lakes See: Experimental Lakes Area

Silica
budget for small lake basin (SCHINDLER 1976) 452
nutrient cycling and radiant energy in aquatic communities (SCHINDLER 1975) 455

Simuliidae
methoxychlor as larvicide (WALLACE 1976) 454

Simulium
patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Slave River (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

Small Memela Lake (Tanzania)
use of diatom microfossils in interpreting distribution of pore water solutes (HECKY 1977) 486

Snib Lake (Ont.)
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

SNOW, N.B.
Zoobenthos ecology of Mackenzie Delta. Int.Ver. Limnol. Verh. 19(2) 1975 413
Effect of crude oil on zoobenthos colonization in subarctic. Int.Ver.Limnol. Verh. 19(3) 1975 416
Design for environmental impact studies on sedimentation in Mackenzie & Porcupine River drainages. Proc. Circumpolar Conf. Northern Ecol. 1975 (Publ. 1977) 464

Snowbird Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Sodium
budget for small lake basin (SCHINDLER 1976) 452
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Sodium azide
evaluation of phenol & sodium azide as reference toxicants in rainbow trout (KLAVERKAMP 1977) 473a

Sodium erythorbate
effects on shelf life on minced sucker flesh (IREDALE 1977) 470

SODIUM

Sodium tripolyphosphate
effects on shelf life of minced sucker flesh (IREDALE 1977) 470

Soil
formation & disappearance of triazine degradation products in soil. (MUIR 1977) 498

SOLOMON, J.
Methoxychlor residue studies in fish from Athabasca R. J.Fish.Res.Board Can. 34(5) 1977. 476
Rapid preparation of micro sample & GLC determination of methoxychlor residues. J.Ass.Off. Anal.Chem. 60(3) 1977 479

Southern Indian Lake (Man.)
ATP concentrations, 1975, 1976 (GUILDFORD 1977) TR749
lake whitefish (AYLES 1976) TR640

Spawning
lake whitefish in S.Indian L. (AYLES 1976) TR640

Sphaerium
benthic communities (HEALEY 1977) TR711

Spruce Woods Provincial Forest (Man.)
fenitrothion monitoring (LOCKHART 1977) 504

STAINTON, M.P.
Chemical analysis of fresh water. 2nd ed. MSP 25 1977 488

Stanwell-Fletcher Lake. (N.W.T.)
dynamics of fish populations(JOHNSON 1977) 465

Steepbank River. (Alta)
survey of baseline levels of contaminants in aquatic biota (LUTZ 1977) 490a

STEPHANSSON, S.E.
Distribution & migration of marine mammals in Central Arctic region. 1976 TR667

Sterilization, surface of chironomid eggs (TOWNSEND 1976) 444

Sterna See: Terns

Sticklebank, brook (*Culaea inconstans*)
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504

Stickleback, threespine (*Gasterosteus aculeatus*)
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

Stizostedion vitreum See: Walleye

Stone flies See: Plecoptera

Stream macrobenthos
patterns in diversity (DE MARCH 1976) 439

Strontium
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Sub-lethal testing
avoidance-preference responses of whitefish to mine effluents (SUPEENE 1977) 473c

Sub-lethal testing (contd)
effects of secondary-treated sewage effluent on fish & invertebrates (ALEXANDER 1977) TR709

Substrate
influence on activity of *Gammarus* (WALLACE 1975) 436
particle size patterns in macrobenthic stream diversity (DE MARCH 1976) 439

Sucker
hot water thawing of mullet blocks (SCOTT 1976) 450

Sucker, longnose (*Catostomus catostomus*)
ecology of populations in NWT (JOHNSON 1976) 451
methoxychlor residue studies in Athabasca R. (LOCKHART 1977) 476
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Sucker, white (*Catostomus commersoni*)
biochemical observations in acidified lake (LOCKHART 1976) 448
ecology of populations in NWT (JOHNSON 1976) 451
effects of additives on shelf life of minced flesh (IREDALE 1977) 470
methoxychlor residue studies in Athabasca R. (LOCKHART 1977) 476
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Sudbury (Ont.) area lakes
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Sully Lake. (Ont.)
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Sulphate
effect of freeze-up on ion & nutrient content of winterkill lake (BARICA 1977) 501

Sulphate-sulphur budget for small lake basin (SCHINDLER 1976) 452

Summer-kill
nitrogen regime of shallow eutrophic lakes (BARICA 1977) 474
prediction of trout survival in prairie lakes (AYLES 1977) 500
seasonal mortality of rainbow trout (AYLES 1976) 431

SUPEENE, K.J.
Avoidance-preference responses of whitefish to mine effluents. 2nd Annual Aquatic Toxicity Workshop, Proc. 1977. 473c
Lethal & sublethal effects of secondary-treated sewage effluent on fish and invertebrates. 1977 TR709

Sylvia Grinnel Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Symbiocladius equitans
(WIENS 1975) 437

Symploca
muddy odor metabolites(TABACHEK 1976) 408

TABACHEK, J.-A.L.
Isolation & identification of blue-green algae producing muddy odor metabolites. J. 31(1) 1976 408

Tagging, isozyme
effects of fry introductions on walleye production in W. Blue L. (SCHWEIGERT 1977) 502

Tanzania, Small Momela Lake
use of diatom microfossils in interpreting distribution of pore water solutes (HECKY 1977) 486

Taste panel evaluation
purging muddy-earthy flavor taint from rainbow trout (IREDALE 1976) 410

Telemetry
speeding up batch telemetry (SCOTT 1976) 473

Telephone data transmission
speeding up batch telemetry (SCOTT 1976) 473

Temperature
effects of photoperiod & temperature on reproductive resting stage in *Hyalella*. (DE MARCH 1977) 499

Terns (*Sterna*)
seasonal mortality of rainbow trout (AYLES 1976) 431

Thailand
nutrient dynamics in eutrophic inland waters (BARICA 1976) 438a

Thawing
hot water thawing of mullet blocks (SCOTT 1976) 450
simplified prediction of freezing & thawing times (SCOTT 1977) 491

Thermal pollution See: Heated effluents

THOMPSON, B.
Some problems with heterotrophic-uptake methodology. Effect of ocean environment on microbial activities 1974 408a

THOMPSON, B.E.
Chemosensory bioassay of toxicity of lake waters. Wat.Poll.Res.Canada 1977 494

THOMPSON, P.C.
Transportation & utilization of marine mammals. 1976 TR651
Rainbow trout farming: economic perspective. 1977 IR83

Thymallus arcticus See: Grayling, Arctic

Tilapia
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419

Titanium
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

TOWNSEND, B.E.
Surface sterilization of chironomid eggs. Can. Ent. 108(6) 1976 444

Toxicants, reference
evaluation of phenol & sodium azide as reference toxicants in rainbow trout (KLAVERKAMP 1977) 473a

Toxicity
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712
of synthetic oil to fish (WAGEMANN 1975) 415; (LOCKHART 1975) 432
seepages from tailings into Kam Lake, NWT 1974 (WALLACE 1975) 416a

Toxicology
research aquatic environmental quality: toxicology (HAMILTON 1976) 453

Trace organic analysis in water (MURRAY 1977) 497

Trail River, (N.W.T.)
crude oil & zoobenthos colonization (ROSENBERG 1975) 416
responses of Chironomidae to crude oil (ROSENBERG 1976) 449

Transport of P & N in Mackenzie & Yukon R. watersheds (BRUNSKILL 1975) 430

Transportation costs of marine mammals (THOMPSON 1976) TR651

Tri-aryl phosphate oil
environmental & toxicological aspects (WAGEMANN 1975) 415
toxicity to fish (LOCKHART 1975) 432

Triazine herbicides
formation & disappearance of degradation products in soil (MUIR 1977) 498

Trichoptera
crude oil & zoobenthos colonization in subarctic (ROSENBERG 1975) 416
life cycles in the Athabasca R. Alta (FLANNAGAN 1977) 482a
patterns in macrobenthic stream diversity (DE MARCH 1976) 439
zoobenthos ecology of Mackenzie Delta (SNOW 1975) 413

Trissocladius
revision (SAETHER 1976) 471

Trout, brook (*Salvelinus fontinalis*)
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480

Trout, lake (*Salvelinus namaycush*)
characteristics of northern trout & lake whitefish populations (HEALEY 1977) 466
dynamics of arctic populations (JOHNSON 1977) 465
ecology in NWT (JOHNSON 1976) 451
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480
Great Bear & Great Slave lake (MOSHENKO 1977) 489a

TROUT, RAINBOW

Trout, rainbow (*Salmo gairdneri*)
acute bioassay for cardiovascular & respiratory functions in rainbow trout (MAJEWSKI 1977) 473b
DDT/DDE exposure (KLAVERKAMP 1976) 440
effect of chlorination on acute toxicity of Winnipeg wastes (CLARKE 1977) TR712
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709
environmental & toxicological aspects of a synthetic oil (WAGEMANN 1975) 415
evaluation of
fenitrothion toxicity (KLAVERKAMP 1977) 493
phenol & sodium azide as reference toxicants (KLAVERKAMP 1977) 473a
farming (AYLES 1977) 492
economic perspective (CAUVIN 1977) IR93
fenitrothion monitoring in S. Manitoba (LOCKHART 1977) 504
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480
mercury & copper & olfactory response (HARA 1976) 441
methoxychlor residue studies in Athabasca R. (LOCKHART 1977) 476
olfactory responses to skin mucous substances (HARA 1976) 422
pH & olfactory responses to amino acids (HARA 1976) 421
pharmacological characterization of acetylcholinesterase from brain (HOBDEN 1977) 485
prediction of survival in prairie lakes (AYLES 1977) 500
purging muddy-earthy flavor taint (IREDALE 1976) 410
seasonal mortality (AYLES 1976) 431
seepages from tailings into Kam Lake, NWT 1974 (WALLACE 1975) 416a
status of aquaculture in heated effluents (AYLES 1976) 433
structure-activity relationship of amino acids in olfaction (HARA 1976) 420; (HARA 1977) 463
structure of cells in hypophyseal rostral *pars distalis* (LEATHERLAND 1976) 419
toxicity of synthetic oil (LOCKHART 1975) 432

Typology, lake
Nearctic chironomids & lake typology (SAETHER 1975) 426

Umbra limi See: Mudminnow, central

Urea
ammonium & urea uptake by freshwater algae. (HEALEY 1977) 460

Ursus maritimus See: Bear, polar

Vaillant Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Vanadium
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Vertical positioning
light intensity & vertical positioning in walleye (SCHERER 1976) 423

WAGEMANN, R.
Toxicity of synthetic oil to fish. Environ. Physiol.Biochem. 5(4) 1975 432

WAGEMANN, R. (contd)
Environmental & toxicological aspects of a synthetic oil. Int.Ver.Limnol. Verh. 19(3) 1975 415
Reliability of trace metal determination by flameless atomic absorption. Accuracy in trace analysis 1976 468
Composition & reactivity of river sediments from Mackenzie valley. Environ.Geol. 1(6) 1977 469

WALLACE, R.R.
Seepages from tailings into Kam Lake, NWT 1974. EPS 5-NW-75-3 1975 416a
Activity of *Gammarus pseudolimnaeus*. Freshwat. Biol. 5(4) 1975 436
Methyoxychlor as larvicide for Simuliidae. Env. Pollut. 10(4) 1976 454
Use of behaviour by *Gammarus* in evaluating environmental stress. EPS-5-AR-77-1 1977 503

Walleye (*Stizostedion vitreum*)
ecology of populations in NWT (JOHNSON 1976) 451
light intensity & vertical positioning (SCHERER 1976) 423
production
effects of fry introductions in W.Blue L. (SCHWEIGERT 1977) 502
seepages from tailings into Kam L. NWT 1974 (WALLACE 1975) 416a
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Walrus (*Odobenus rosmarus*)
distribution & migration in C. Arctic region (READ 1976) TR667
transportation & utilization (THOMPSON 1976) TR651

WARD, F.J.
Effects of fry introductions on walleye production in W.Blue L. J.Fish.Res.Board Can. 34(11) 1977 502

WARWICK, W.F.
Impact of man on Bay of Quinte. Int.Ver.Limnol. Verh. 19(4) 1975 429

Water budget
for small lake basin (SCHINDLER 1976) 452
in small Precambrian lakes (NEWBURY 1977) 496

Water, fresh
chemical analysis of (STAINTON 1977) 488

WEBSTER, G.R.B.
Analysis of trace organic contaminants in water. 12th Ann. Workshop Pesticide Residue Analysis 1977 497

WEINBERGER, P.
Fenitrothion monitoring in S. Manitoba. Proc. Symp. Fenitrothion 1977 504

WELCH, H.E.
Phytoplankton cycles in polar lakes. Int.Ver. Limnol. Verh. 19(1) 1975 430a

West Blue Lake (Man.)
effects of fry introductions on walleye production (SCHWEIGERT 1977) 502

Whitefish, broad (*Coregonus nasus*)
ecology of populations in NWT (JOHNSON 1976) 451

Whitefish, lake (*Coregonus clupeaformis*)
avoidance-preference responses to mine effluents (SUPEENE 1977) 473c
biochemical genetic study of zoogeography (FRANZIN 1977) 475
characteristics of northern populations (HEALEY 1977) 466
dynamics of arctic populations (JOHNSON 1977) 465
ecology of populations in NWT (JOHNSON 1976) 451
effects of secondary-treated sewage effluent (ALEXANDER 1977) TR709
histochemical localization of phospholipids in olfactory epithelium (EVANS 1977) 480
mucus
olfactory responses to skin mucous substances (HARA 1976) 422
olfactory discrimination between glycine & deuterated glycine (HARA 1977) 490
seepages from tailings into Kam L. NWT 1974 (WALLACE 1975) 416a
Southern Indian L. (AYLES 1976) TR640
survey of baseline levels of contaminants in AOSERP study area (LUTZ 1977) 490a

Whitefish, round (*Prosopium cylindraceum*)
ecology of populations in NWT. (JOHNSON 1976) 451

Whitefish Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

Wholdaia Lake (N.W.T.)
ecology of fish populations (JOHNSON 1976) 451

WIENS, A.P.
Experimental sediment addition studies, Harris R. Int.Ver.Limnol. Verh. 19(2) 1975 414
Symbiocladius equitans. Ent.Germ. 2(2) 1975 437
Responses of Chironomidae to crude oil. J. 33(9) 1976 449
Life histories of *Cricotopus* in Fort Simpson area, NWT. J. 34(2) 1977 461
Responses to crude oil contamination by *Cricotopus*. J. 34(2) 1977 462
Larval cocoons in *Eukiefferiella*. Can.Entomol. 109(6) 1977 478

Winnipeg, Lake (Man.)
ecology of fish populations (JOHNSON 1976) 451
relative atomic variation of elements in lake sediments (ALLAN 1977) 489

Winnipeg municipal wastes
effect of chlorination on acute toxicity (CLARKE 1977) TR712

Wood Lake (Man.)
ATP concentrations 1975, 1976 (GUILDFORD 1977) TR749

Workshop on environmental effects of reservoirs (AYLES 1974) 446a

YORK, R.K.
Purging muddy-earthy flavor taint from rainbow trout. J. 33(1) 1976 410
Effects of additives on shelf life of minced sucker flesh. J. 34(3) 1977 470

Yukon River (Yukon)
transport of P & N (BRUNSKILL 1975) 430

YURKOWSKI, M.
Isolation & identification of blue-green algae producing muddy odor metabolites. J 31(1) 1976 408

Zalutschia
revision (SAETHER 1976) 471

Zinc
chemosensory bioassay of toxicity of lake waters (THOMPSON 1977) 494
composition & reactivity of river sediments from Mackenzie valley (WAGEMANN 1977) 469
relative atomic variation of elements in lake sediments (ALLAN 1977) 489
reliability of trace determination by flameless atomic absorption (WAGEMANN 1976) 468
seepages from tailings into Kam Lake, NWT 1974 (WALLACE 1975) 416a
survey of baseline levels in aquatic biota of AOSERP study area (LUTZ 1977) 490a

Zoobenthos
crude oil & colonization in subarctic (ROSENBERG 1975) 416
drift
experimental sediment addition, Harris R. (ROSENBERG 1975) 414
ecology in Mackenzie Delta (SNOW 1975) 413
patterns in stream diversity (DE MARCH 1976) 439
responses of Chironomidae to crude oil (ROSENBERG 1976) 449
See also: Benthos

Zoogeography
biochemical genetic study of zoogeography of lake whitefish (FRANZIN 1977) 475

Zooplankton
cooling water discharges & environmental enhancement (PATALAS 1976) 434